

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	2158	podophyllotoxin	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/19 14:07
S2	205	podophyllotoxin.ab.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/06 13:57
S3	6	"576201".ap.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/06 14:03
S4	8	("3634459" "5536847" "5541223"). PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/06 14:03
S5	2	"6903133".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/19 13:37
S6	0	podophyllotoxin and pyrrol-2, 4-dione	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/19 14:07
S7	0	podophyllotoxin and pyrrol-2, 5-dione	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/19 14:07

EAST Search History

S8	16	podophyllotoxin and pyrrol same dione	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/19 14:34
S9	4	"6903131"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/19 14:34
S10	4	"6903131".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/19 14:39
S11	15254	maleimide.ab. prodrug.ab.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/19 14:40
S12	1	maleimide.ab. and prodrug.ab. and cancer.ab.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/19 14:41
S13	77	maleimide.ab. and cancer.ab.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/19 15:05
S14	0	maleimide.ab. and cancer.ab. same linker.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/19 15:05

EAST Search History

S15	18	maleimide near linker and cancer. ab.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/19 15:18
S16	1684	maleimide same linker	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/19 15:18
S17	1086	maleimide same linker and cancer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/19 15:19
S18	108	maleimide same linker and cancer. ab.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/19 15:19
S19	6	"576201".ap.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/19 15:27
S20	7	"108979".ap.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/06/19 15:27

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSPTARHH1626

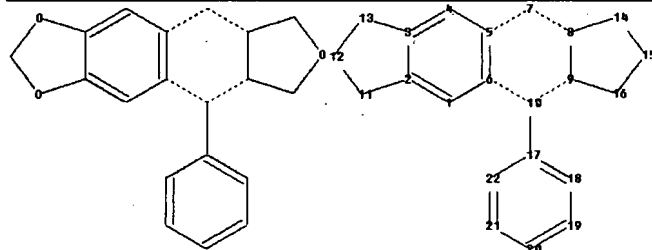
PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR 7):2

***** Welcome to STN International *****

NEWS 1 Web Page for STN Seminar Schedule - N. America
NEWS 2 JAN 08 CHEMLIST enhanced with New Zealand Inventory of Chemicals
NEWS 3 JAN 16 CA/Caplus Company Name Thesaurus enhanced and reloaded
NEWS 4 JAN 16 IPC version 2007.01 thesaurus available on STN
NEWS 5 JAN 16 WPIDS/WPINDEX/WPIX enhanced with IPC 8 reclassification data
NEWS 6 JAN 22 CA/Caplus updated with revised CAS roles
NEWS 7 JAN 22 CA/Caplus enhanced with patent applications from India
NEWS 8 JAN 29 PHAR reloaded with new search and display fields
NEWS 9 JAN 29 CAS Registry Number crossover limit increased to 300,000 in multiple databases
NEWS 10 FEB 15 PATDPASPC enhanced with Drug Approval numbers
NEWS 11 FEB 15 RUSSAPAT enhanced with pre-1994 records
NEWS 12 FEB 23 KOREAPAT enhanced with IPC 8 features and functionality
NEWS 13 FEB 26 MSDLINE reloaded with enhancements
NEWS 14 FEB 26 EMBASE enhanced with Clinical Trial Number field
NEWS 15 FEB 26 TOXCENTER enhanced with reloaded MEDLINE
NEWS 16 FEB 26 IPICDI/IPIPAT/IPIUDB reloaded with enhancements
NEWS 17 FEB 26 CAS Registry Number crossover limit increased from 10,000 to 300,000 in multiple databases
NEWS 18 MAR 15 WPIDS/WPIX enhanced with new FRAGHITSTR display format
NEWS 19 MAR 16 CASREACT coverage extended
NEWS 20 MAR 20 MARPAT now updated daily
NEWS 21 MAR 22 LNPI reloaded
NEWS 22 MAR 30 DISCLOSURE reloaded with enhancements
NEWS 23 APR 02 JICST-PLUS removed from database clusters and STN
NEWS 24 APR 30 GENBANK reloaded and enhanced with Genome Project ID field
NEWS 25 APR 30 CHEMCATS enhanced with 1.2 million new records
NEWS 26 APR 30 CA/Caplus enhanced with 1870-1889 U.S. patent records
NEWS 27 APR 30 INPADOC replaced by INPADOCDB on STN
NEWS 28 MAY 01 New CAS web site launched
NEWS 29 MAY 08 CA/Caplus Indian patent publication number format defined
NEWS 30 MAY 14 DISCLOSURE on STN Easy enhanced with new search and display fields
NEWS 31 MAY 21 BIOSIS reloaded and enhanced with archival data
NEWS 32 MAY 21 TOXCENTER enhanced with BIOSIS reloaded
NEWS 33 MAY 21 CA/Caplus enhanced with additional kind codes for German patents
NEWS 34 MAY 22 CA/Caplus enhanced with IPC reclassification in Japanese patents

NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V6.01c, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS LOGIN Welcome Banner and News Items

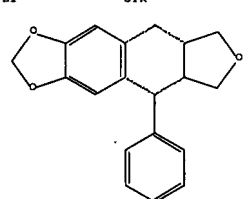


ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22
chain bonds :
10-17
ring bonds :
1-2 1-6 2-3 2-11 3-4 3-13 4-5 5-6 5-7 6-10 7-8 8-9 8-14 9-10 9-16
11-12 12-13 14-15 15-16 17-18 17-22 18-19 19-20 20-21 21-22
exact/norm bonds :
2-11 3-13 5-7 6-10 7-8 8-9 8-14 9-10 9-16 11-12 12-13 14-15 15-16
exact bonds :
10-17
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 17-18 17-22 18-19 19-20 20-21 21-22

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom
21:Atom
22:Atom

L1 STRUCTURE UPLOADED

=> d
L1 HAS NO ANSWERS
L1 STR



NEWS IPCS For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

***** STN Columbus *****

FILE 'HOME' ENTERED AT 11:43:58 ON 06 JUN 2007

=> file reg
COST IN U.S. DOLLARS
SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST 0.21 0.21

FILE 'REGISTRY' ENTERED AT 11:44:22 ON 06 JUN 2007

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2007 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 5 JUN 2007 HIGHEST RN 936615-27-9
DICTIONARY FILE UPDATES: 5 JUN 2007 HIGHEST RN 936615-27-9

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>
Uploading C:\Program Files\Stnexp\Queries\10.576201\form 2.str

Structure attributes must be viewed using STN Express query preparation.

=> s l1 sss sam
SAMPLE SEARCH INITIATED 11:44:46 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 1309 TO ITERATE
100.0% PROCESSED 1309 ITERATIONS 50 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

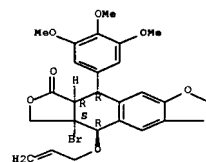
FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 24010 TO 28350
PROJECTED ANSWERS: 2991 TO 4649

L2 50 SEA SSS SAM L1

=> d scan

L2 50 ANSWERS REGISTRY COPYRIGHT 2007 ACS ON STN
IN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 8a-bromo-5,8,8a,9-tetrahydro-9-(2-propenyloxy)-5-(3,4,5-trimethoxyphenyl)-, (5R,8aR,8aR,9R)-(9CI)
MF C25 H25 Br O8

Absolute stereochemistry. Rotation (-).

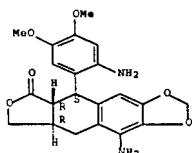


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):2

L2 50 ANSWERS REGISTRY COPYRIGHT 2007 ACS ON STN
IN INDEX NAME NOT YET ASSIGNED
MF C21 H22 N2 O6

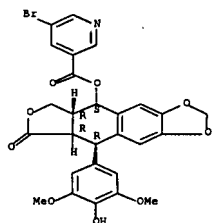
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L2 50 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN 3-Pyridinecarboxylic acid, 5-bromo-, (5S,5aR,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl ester (9CI)
MP C27 H22 Br N O9

Absolute stereochemistry. Rotation (-).

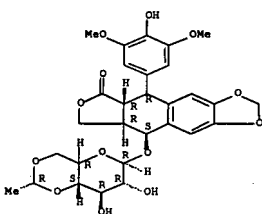


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):2

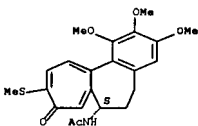
L2 50 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Benzenepropanoic acid, 3,4,5-trimethoxy-, (1R,3Z)-12-[[[(5R,5aR,8aR,9R)-5,5a,6,8,8a,9-hexahydro-8-oxo-9-(3,4,5-trimethoxyphenyl)furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]oxy]-1-hexyl-12-oxo-3-dodecenyl ester (9CI)
MP C52 H68 O14

Absolute stereochemistry.
Double bond geometry as shown.



CM 2

Absolute stereochemistry.

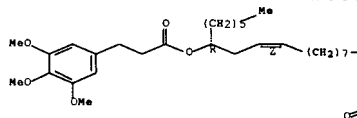


HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):2

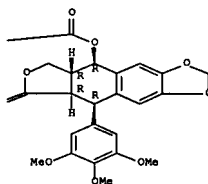
L2 50 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN 9-Octadecenoic acid, 12-[[[(9Z)-1-oxo-9-octadecenyl]oxy]-, (5R,5aR,8aR,9R)-5,5a,6,8,8a,9-hexahydro-8-oxo-9-(3,4,5-trimethoxyphenyl)furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl ester, (9Z)- (9CI)
MP C58 H86 O11

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



PAGE 1-B



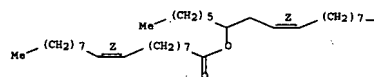
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L2 50 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Acetamide, N-[(7S)-5,6,7,9-tetrahydro-1,2,3-trimethoxy-10-(methylthio)-9-oxobenzo[a]heptalen-7-yl]-, mixt. with (5R,5aR,8aR,9S)-9-[[[4,6-O-(1R)-ethylidene-β-D-glucopyranosyl]oxy]-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one (9CI)
MP C29 H32 O13 . C22 H25 N O5 S
CI MXS

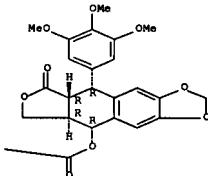
CM 1

Absolute stereochemistry. Rotation (-).

PAGE 1-A



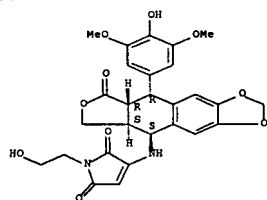
PAGE 1-B



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L2 50 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-6-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-1-(2-hydroxyethyl)- (9CI)
MP C27 H26 N2 O10

Absolute stereochemistry.

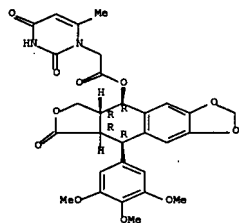


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):2

L2 50 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN 1(2H)-Pyrimidineacetic acid, 3,4-dihydro-6-methyl-2,4-dioxo-,
(5R,5aR,8aR,9R)-5,5a,6,8,8a,9-hexahydro-8-oxo-9-(3,4,5-
trimethoxyphenyl)furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl ester (9CI)
MP C29 H28 N2 O11

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

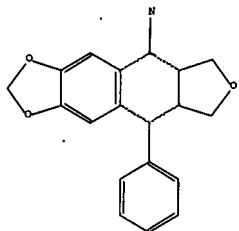
L2 50 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Benzenepropanamide, alpha-amino-N-[5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-
3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]-,
[5S-[5a(R*),5aβ,8aα,9β]]- (9CI)
MP C30 H30 N2 O8

exact bonds :
10-17
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 17-18 17-22 18-19 19-20 20-21 21-22

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom
21:Atom
22:Atom 23:CLASS

L3 STRUCTURE UPLOADED

=> d
L3 HAS NO ANSWERS
L3 STR



Structure attributes must be viewed using STN Express query preparation.

=> e 13 sss sam
SAMPLE SEARCH INITIATED 11:46:34 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 98 TO ITERATE

100.0% PROCESSED 98 ITERATIONS 44 ANSWERS
SEARCH TIME: 00.00.01

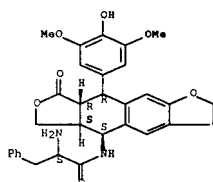
FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 1367 TO 2553
PROJECTED ANSWERS: 483 TO 1277

L4 44 SEA SSS SAM L3

=> d scan

L4 44 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN

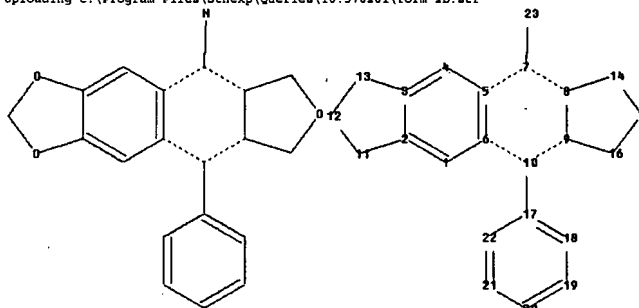
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

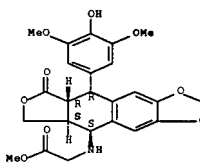
=>
Uploading C:\Program Files\Stnexp\Queries\10.576201\form 2b.str



chain nodes :
23
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22
chain bonds :
7-23 10-17
ring bonds :
1-2 1-6 2-3 2-11 3-4 3-13 4-5 5-6 5-7 6-10 7-8 8-9 8-14 9-10 9-16
11-12 12-13 14-15 15-16 17-18 17-22 18-19 19-20 20-21 21-22
exact/norm bonds :
2-11 3-13 5-7 6-10 7-8 7-23 8-9 8-14 9-10 9-16 11-12 12-13 14-15 15-16

IN Glycine, N-[5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-
oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]-, methyl ester,
[5S-[5a,5aβ,8aα,9β]]- (9CI)
MP C24 H25 N O9

Absolute stereochemistry.

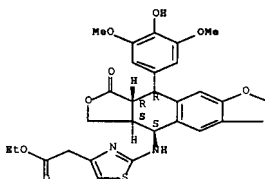


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):2

L4 44 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN 4-Thiazoleacetic acid, 2-[[[(5S,5aR,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-
hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-
5-yl)amino]-, ethyl ester (9CI)
MP C28 H28 N2 O9 S

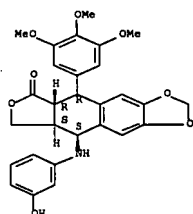
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 44 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-9-
[(3-hydroxyphenyl)amino]-5-(3,4,5-trimethoxyphenyl)-, (5R,5aR,8aR,9R)-
(9CI)
MP C28 H27 N O8

Absolute stereochemistry.

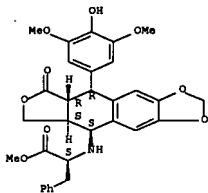


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):2

L4 44 ANSWERS REGISTRY COPYRIGHT 2007 ACS ON STN
 IN L-Phenylalanine, N-[5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]-, methyl ester, [(5S-(5a,5aβ,8a,9β))- (9CI)
 MF C31 H31 N O5

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 44 ANSWERS REGISTRY COPYRIGHT 2007 ACS ON STN
 IN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[(5-nitro-1,2-benzisothiazol-3-yl)amino]-, (5R,5aR,8aS,9S)- (9CI)
 MF C28 H23 N3 O9 S

FULL ESTIMATED COST 2.60 4.61

FILE 'REGISTRY' ENTERED AT 11:47:45 ON 06 JUN 2007
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
 COPYRIGHT (C) 2007 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 5 JUN 2007 HIGHEST RN 936615-27-9
 DICTIONARY FILE UPDATES: 5 JUN 2007 HIGHEST RN 936615-27-9

New CAS Information Use Policies, enter HELP USAGETERMS for details.

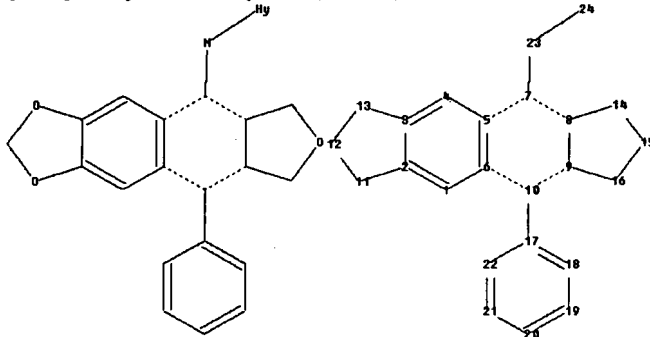
TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

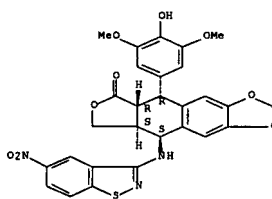
<http://www.cas.org/support/stngen/stndoc/properties.html>

=> Uploading C:\Program Files\Stnexp\Queries\10.576201\form 2c.str



chain nodes :
 23 24
 ring nodes :
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22
 chain bonds :
 7-23 10-17 23-24
 ring bonds :
 1-2 1-6 2-3 2-11 3-4 3-13 4-5 5-6 5-7 6-10 7-8 8-9 8-14 9-10 9-16

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> file hcaplus
 COST IN U.S. DOLLARS SINCE FILE TOTAL
 ENTRY SESSION
 FULL ESTIMATED COST 1.80 2.01

FILE 'HCAPLUS' ENTERED AT 11:46:58 ON 06 JUN 2007
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
 COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 6 Jun 2007 VOL 146 ISS 24
 FILE LAST UPDATED: 5 Jun 2007 (20070605/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 14
 L5 38 L4

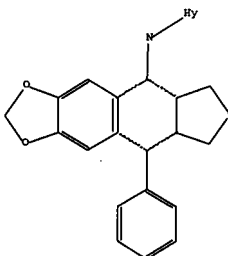
=> file reg
 COST IN U.S. DOLLARS SINCE FILE TOTAL
 ENTRY SESSION

11-12 12-13 14-15 15-16 17-18 17-22 18-19 19-20 20-21 21-22
 exact/norm bonds :
 2-11 3-13 5-7 6-10 7-8 7-23 8-9 8-14 9-10 9-16 11-12 12-13 14-15 15-16
 23-24
 exact bonds :
 10-17
 normalized bonds :
 1-2 1-6 2-3 3-4 4-5 5-6 17-18 17-22 18-19 19-20 20-21 21-22

Match level :
 1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom
 21:Atom
 22:Atom 23:CLASS 24:Atom

L6 STRUCTURE UPLOADED

=> d
 L6 HAS NO ANSWERS
 L6 STR



Structure attributes must be viewed using STN Express query preparation.

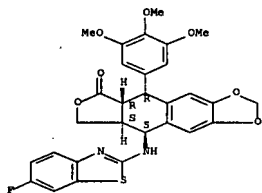
=> s 16 sss sam
 SAMPLE SEARCH INITIATED 11:48:09 FILE 'REGISTRY'
 SAMPLE SCREEN SEARCH COMPLETED - 98 TO ITERATE
 100.0% PROCESSED 98 ITERATIONS 10 ANSWERS
 SEARCH TIME: 00.00.01
 FULL FILE PROJECTIONS: ONLINE **COMPLETE**
 BATCH **COMPLETE**
 PROJECTED ITERATIONS: 1367 TO 2553
 PROJECTED ANSWERS: 11 TO 389

L7 10 SEA SSS SAM L6

=> d scan

L7 10 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[(6-fluoro-2-benzothiazolyl)amino]-5,8,8a,9-tetrahydro-5-(3,4,5-trimethoxyphenyl)-, (5R,5aR,8aS,9S)- (9CI)
MF C29 H25 F N2 O7 S

Absolute stereochemistry.

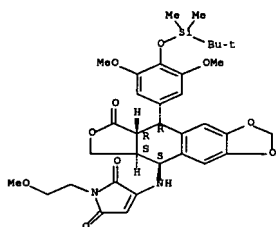


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):2

L7 10 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl)amino]-1-(2-methoxyethyl)- (9CI)
MF C34 H42 N2 O10 S1

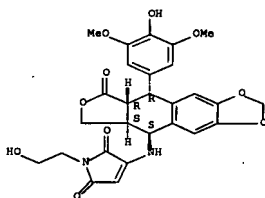
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L7 10 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl)amino]-1-(2-hydroxyethyl)- (9CI)
MF C27 H26 N2 O10

Absolute stereochemistry.

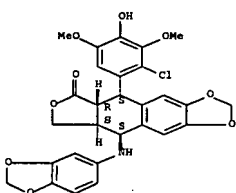


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):2

L7 10 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[(1,3-benzodioxol-5-ylamino)-5-(2-chloro-4-hydroxy-3,5-dimethoxyphenyl)-5,8,8a,9-tetrahydro-, [5S-(5a,5aβ,8aα,9β)]- (9CI)
MF C28 H24 Cl N O9

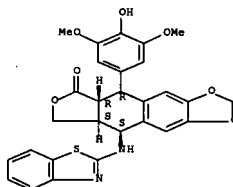
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L7 10 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-(2-benzothiazolylamino)-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, [5R-(5a,5aβ,8aα,9β)]- (9CI)
MF C28 H24 N2 O7 S

Absolute stereochemistry.

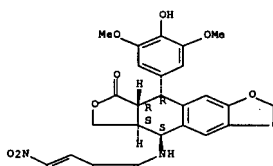


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):2

L7 10 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[(5-nitro-1,2-benzisothiazol-3-yl)amino]-, (5R,5aR,8aS,9S)- (9CI)
MF C28 H23 N3 O9 S

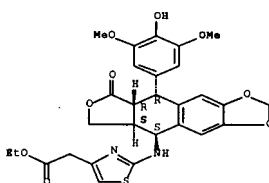
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L7 10 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN 4-Thiazoleacetic acid, 2-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl)amino]-ethyl ester (9CI)
MF C28 H28 N2 O9 S

Absolute stereochemistry.



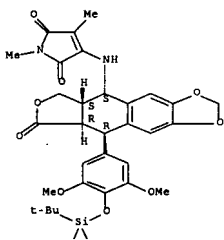
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):2

L7 10 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl)amino]-1,4-dimethyl- (9CI)
MF C33 H40 N2 O9 S1

Absolute stereochemistry.

PAGE 1-A



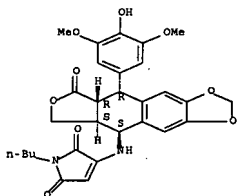
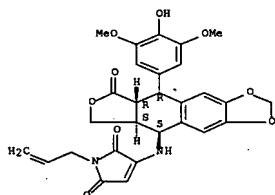
M6 Na

PAGE 2-A

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L7 10 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl)amino]-1-(2-propenyl)- (9CI)
MF C28 H26 N2 O9

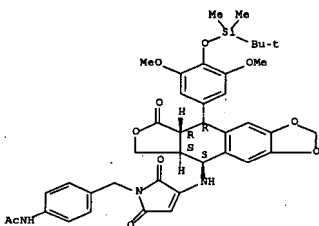
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L8 108 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Acetamide, N-[4-[[[3-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl)amino]-2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]phenyl]- (9CI)
MF C40 H45 N3 O10 S1

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):2

L8 108 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[[[6-fluoro-2-benzothiazolyl)amino]-5,8,8a,9-tetrahydro-5-(3,4,5-trimethoxyphenyl)-, (5R,5aR,8aS,9S)- (9CI)
MF C29 H25 F N2 O7 S

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> s 16 sss full
FULL SEARCH INITIATED 11:48:30 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 1934 TO ITERATE

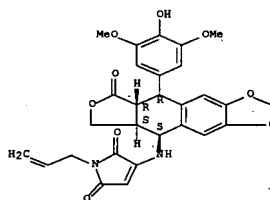
100.0% PROCESSED 1934 ITERATIONS 108 ANSWERS
SEARCH TIME: 00.00.01

L8 108 SBA SSS FUL L6

=> d scan

L8 108 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl)amino]-1-(2-propenyl)- (9CI)
MF C28 H26 N2 O9

Absolute stereochemistry.

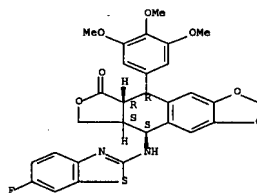


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):2

L8 108 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN 1H-Pyrrole-2,5-dione, 1-butyl-3-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl)amino]- (9CI)
MF C29 H30 N2 O9

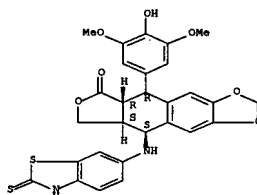
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L8 108 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[[[2,3-dihydro-2-thioxo-6-benzothiazolyl)amino]-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aS,9S)- (9CI)
MF C28 H24 N2 O7 S2

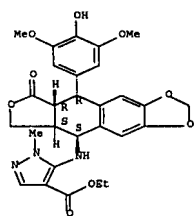
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):2

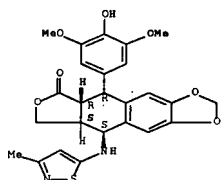
L8 108 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN 1H-Pyrazole-4-carboxylic acid, 5-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl)amino]-1-methyl-, ethyl ester (9CI)
MF C28 H29 N3 O9



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L8 108 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Puro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[(3-methyl-5-isothiazolyl)amino]-, (5R,5aR,8aS,9S)- (9CI)
MF C25 H24 N2 O7 S

Absolute stereochemistry.



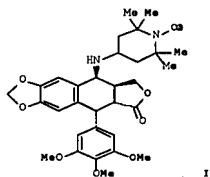
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> file hcaplus
COST IN U.S. DOLLARS
FULL ESTIMATED COST

SINCE FILE	TOTAL
ENTRY	SESSION
172.55	177.16

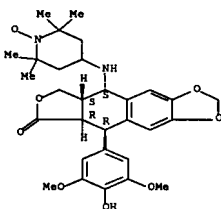
FILE 'HCAPLUS' ENTERED AT 11:48:49 ON 06 JUN 2007



AB The crystal structure of the nitroxide spin labeled derivative (I) of podophyllotoxin was first reported. X-ray anal. demonstrated that four contiguous chiral centers in the mol., C1, C2, C3, and C4, adopt cis- (1:2), trans- (2:3), and cis- (3:4) arrangement.

IT 125670-69-1P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(Preparation of a nitroxide spin labeled derivative of podophyllotoxin and its absolute configuration determined by crystal structure)
RN 125670-69-1 HCAPLUS
CN 1-Piperidinyl-oxo, 4-[[[5S,5aR,8aR,9R]-5,8a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-2,2,6,6-tetramethyl- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 2 OF 42 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:602288 HCAPLUS Full-text
DOCUMENT NUMBER: 145:62718
TITLE: Synthesis and biological activity of new 4β-N-heteroaryl analogues of podophyllotoxin
AUTHOR(S): Kamal, Ahmed; Kuper, B. Ashwini; Arifuddin, M.; Desai, Sunanda, G.
CORPORATE SOURCE: Division of Organic Chemistry, Indian Institute of Chemical Technology, Hyderabad, 500007, India
SOURCE: Letters in Drug Design & Discovery (2006), 3(3),

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 6 Jun 2007 VOL 146 ISS 24
FILE LAST UPDATED: 5 Jun 2007 (20070605/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

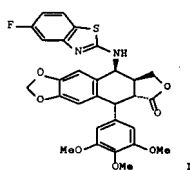
This file contains CAS Registry Numbers for easy and accurate substance identification.

=> a 18
L9 42 L8

=> d ibib abs hitstr 1-10

L9 ANSWER 1 OF 42 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:154281 HCAPLUS Full-text
DOCUMENT NUMBER: 146:401730
TITLE: The absolute configuration of a nitroxide spin labeled derivative of podophyllotoxin determined by the crystal structure
AUTHOR(S): Zhou, Baohan; Yin, Guodong; Meng, Xiangqiao; Li, Yitao; Wu, Anxin
CORPORATE SOURCE: Key Laboratory of Pesticide and Chemical Biology, Ministry of Education, College of Chemistry, Central China Normal University, Wuhan, 430079, Peop. Rep. China
SOURCE: Canadian Journal of Chemistry (2006), 84(12), 1603-1606
CODEN: CJCHAG; ISSN: 0008-4042
PUBLISHER: National Research Council of Canada
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

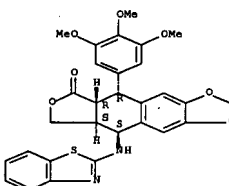
205-209
CODEN: LODDAN; ISSN: 1570-1808
PUBLISHER: Bentham Science Publishers Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 145:62718
GI



AB Five new 4β-N-heteroaryl analogs of podophyllotoxin, e.g. I, have been prepared by employing red phosphorus/I2 reagent system. Four of these 4β-N-heteroaryl analogs have been evaluated for their cytotoxicity against six human cancer cell lines with some representatives showing promising anticancer activity.

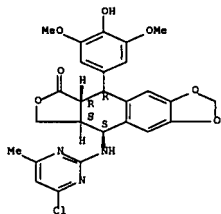
IT 748151-14-6P 748151-19-1P 891781-84-3P
891781-85-4P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(synthesis and biol. activity of new 4-N-heteroaryl analogs of podophyllotoxin)
RN 748151-14-6 HCAPLUS
CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-(2-benzothiazolylamino)-5,8,8a,9-tetrahydro-5-(3,4,5-trimethoxyphenyl)-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



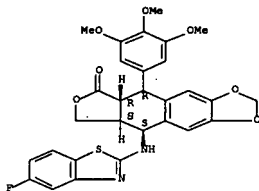
RN 748151-19-1 HCAPLUS
 CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[(4-chloro-6-methyl-2-pyrimidinyl)amino]-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 891781-84-3 HCAPLUS
 CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[(5-fluoro-2-benzothiazolyl)amino]-5,8,8a,9-tetrahydro-5-(3,4,5-trimethoxyphenyl)-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 891781-85-4 HCAPLUS
 CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[(6-chloro-2-(methylthio)-4-pyrimidinyl)amino]-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

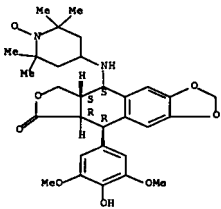
PUBLISHER: Oncology Reports
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB L-carnitine (β -hydroxy-trimethylaminobutyric acid) plays an essential metabolic role that consists of transferring the long chain fatty acids through the mitochondrial barrier, thus allowing their energy-yielding oxidation. GP7 (4-[4'-(2'', 2'', 6'', 6''-tetramethyl-1''-piperidinyl)oxy] amino]-4'-dimethyl-epidodophyllotoxin) is a new spin-labeled derivative of podophyllotoxin semi-synthesized by our university. In this study, we examined the activity of L-carnitine in GP7-induced apoptosis in Burkitt's lymphoma cell line, Raji. GP7 induced time- and dose-dependent apoptotic DNA fragmentation accompanied by caspase-3 activation in Raji cells, and the kinetics of caspase-3 activation induced by GP7 was well correlated with that of apoptotic DNA fragmentation. L-carnitine treatment prevented GP7-induced caspase-3 activation, suppressed caspase-3 cleavage and abrogated GP7-induced apoptotic DNA fragmentation in Raji cells. Our findings suggest that L-carnitine is a potent anti-apoptotic agent to human lymphoma cells and may exert its anti-apoptotic effect via inhibition of caspase-3 activity in GP7-treated Raji cells.

IT 125670-69-1, GP7
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (L-carnitine prevented GP7-induced caspase-3 activation, suppressed caspase-3 cleavage and abrogated GP7-induced apoptotic DNA fragmentation in Burkitt's lymphoma cell line, Raji)

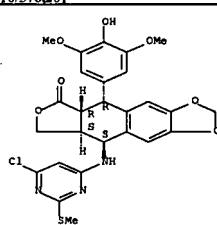
RN 125670-69-1 HCAPLUS
 CN 1-Piperidinyl-oxo, 4-[[[5,5a,8a,9R]-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-6-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-2,2,6,6-tetramethyl- (CA INDEX NAME)

Absolute stereochemistry.



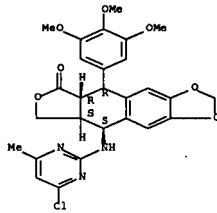
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 4 OF 42 HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 2005:181189 HCAPLUS Full-text
 DOCUMENT NUMBER: 142:261336
 TITLE: Process for the preparation of new 9-aminopodophyllotoxin derivatives and antitumor pharmaceutical compositions containing them
 INVENTOR(S): Monneret, Claude; Dauzonne, Daniel; Hickman, John; Pierre, Alain; Kraus, Berthier Laurence; Pfeiffer, Bruno; Renard, Pierre
 PATENT ASSIGNEE(S): Les Laboratoires Servier, Fr.; Centre National de la Recherche Scientifique CNRS
 SOURCE: Fr. Demande, 39 pp.
 CODEN: FRXXBL



IT 748151-11-3P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (synthesis and biol. activity of new 4-N-heteroaryl analogs of podophyllotoxin)
 RN 748151-11-3 HCAPLUS
 CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[(4-chloro-6-methyl-2-pyrimidinyl)amino]-5,8,8a,9-tetrahydro-5-(3,4,5-trimethoxyphenyl)-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 42 HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 2006:65364 HCAPLUS Full-text
 DOCUMENT NUMBER: 144:480533
 TITLE: L-carnitine inhibits apoptotic DNA fragmentation induced by a new spin-labeled derivative of podophyllotoxin via caspase-3 in Raji cells
 AUTHOR(S): Qi, She-Ning; Zhang, Zhi-Peng; Wang, Zhen-Yun; Yoshida, Akira; Ueda, Takanori
 CORPORATE SOURCE: Department of Histology and Embryology, Lanzhou University, Lanzhou, 730000, Peop. Rep. China
 SOURCE: Oncology Reports (2006), 15(1), 119-122
 CODEN: OCRPEW; ISSN: 1021-335X

DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2859208	A1	20050304	FR 2003-10367	20030902
FR 2859208	B1	20060120		
CA 2546823	A1	20050317	CA 2004-2546823	20040901
WO 2005023817	A1	20050317	WO 2004-FR2218	20040901
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, GU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SV, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BM, BH, OM, KE, LS, MW, MZ, NA, SD, SE, SZ, TZ, UG, ZM, ZW, AM, AE, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1664055	A1	20060607	EP 2004-787274	20040901
EP 1664055	B1	20061213		
R: CH, DE, FR, GB, LI				
US 2006247246	A1	20061102	US 2006-576201	20060417
PRIORITY APPL. INFO.:			FR 2003-10367	A 20030902
			WO 2004-FR2218	W 20040901
OTHER SOURCE(S):		CASREACT 142:261336; MARPAT 142:261336		
OI				

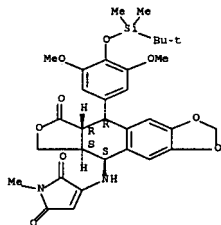
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB 9-Aminopodophyllotoxin derivs. I [R1 = H, alkyl, aryl, arylalkyl, heteroaryl, heteroarylalkyl, alkylcarbonyl, arylcarbonyl, arylalkylcarbonyl, alkoxycarbonyl, arylalkoxycarbonyl, heterocycloalkoxycarbonyl, alkylsulfonyl, arylsulfonyl, arylalkylsulfonyl, phosphonic, Si(Ra)2Rb; Y = NNNH, NR2; R2 = H, (un)branched C1-6-alkyl, aryl, heteroaryl, cycloalkyl, heterocycloalkyl, C2-6-alkenyl, C2-6-alkynyl, TIR5; R3 = H, alkyl, cycloalkyl, aryl, arylalkyl; R4 = H, alkyl; R5 = OH, (un)branched O-(C1-6-alkyl), (C1-6-alkyl)-C(=O), [(C1-6-alkyl)-O]C(=O), (C1-6-alkyl)-C(=O), CO2H, halogen, trihalomethyl, aryl, heteroaryl, cycloalkyl, heterocycloalkyl, NRcRd; Ra, Rb = linear or branched C1-6-alkyl, aryl; Rc, Rd = H, (un)branched C1-6-alkyl; Tl = (un)branched C1-6-alkylene, (un)branched C2-6-alkenylene, (un)branched C2-6-alkynylene] their enantiomers, diastereoisomers or pharmaceutically acceptable acid or base additive salts are described. The procedure for the preparation of I comprises: (i) reaction of 9-aminopodophyllotoxin derivative II with R1'X (R1' = (un)branched C1-6-alkyl, aryl, aryl-(C1-6-alkyl), heteroaryl, heteroaryl-(C1-6-alkyl), (C1-6-alkyl)-carbonyl, arylcarbonyl, aryl-(C1-6-alkyl)carbonyl, C1-6-alkoxycarbonyl, arylalkoxycarbonyl, arylalkoxycarbonyl, heterocycloalkoxycarbonyl, etc.; X = H, halogen, usual organic leaving group) to give podophyllotoxin derivative (III); or (ii) reaction of II with GL [G = classical protective group; L = usual organic leaving group] to give podophyllotoxin derivative (IV); (iii) reaction of III or IV with R3'X' (X' = H, halogen, O) to give 9-aminopodophyllotoxin derivative V (T = R1', O); (iv) reaction of V with heterocycle VI (Hal = halogen) and (v) removal of T to give I. Thus, (5S,5aS,8aR,9R)-I (R1 = R3 = R4 = H, Y = NMe) was prepared from (5R,5aR,8aS,9S)-II via allylation with Me3CMe2SiCl in DMF containing imidazole, conjugate addition to 3-bromo-1-methyl-1H-pyrrole-2,5-dione (VI; Hal = Br, R4 = H, Y = NMe), and desilylation with Dowex 50x2 (200 mesh) in MeOH. I can be used in the treatment of cancer [(5S,5aS,8aR,9R)-I (R1 = R3 = R4 = H, Y = NMe) gave T/C > 57% at 50 mg/Kg vs. murine leukemia P388 cells; IC50 = 54 nM vs. murine leukemia L1210 cells].

IT 846058-67-1P 846058-71-7P 846058-73-9P
 846058-75-1P 846058-77-3P 846058-79-5P
 846058-81-9P 846058-83-1P 846058-85-3P
 846058-88-6P 846058-90-0P 846058-92-2P
 846058-94-4P 846058-96-6P 846058-98-8P
 846059-00-5P 846059-02-7P
 RI: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (preparation and desilylation of; preparation of new 9-aminopodophyllotoxin derive. and antitumor pharmaceutical compns. containing them)

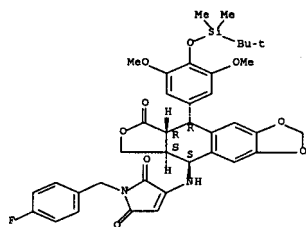
RN 846058-67-1 HCAPLUS
 CN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-9-[4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-3,5-dimethoxyphenyl]-5,5a,6,8,8a,9-hexahydro-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-1-methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

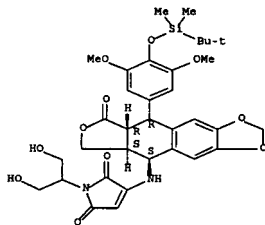


RN 846058-71-7 HCAPLUS
 CN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-9-[4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-3,5-dimethoxyphenyl]-5,5a,6,8,8a,9-hexahydro-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-1-[(4-fluorophenyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

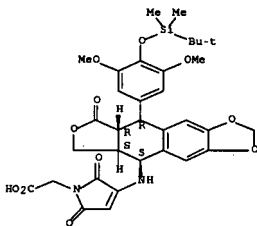


Absolute stereochemistry.



RN 846058-79-5 HCAPLUS
 CN 1H-Pyrrole-1-acetic acid, 3-[[[(5S,5aS,8aR,9R)-9-[4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-3,5-dimethoxyphenyl]-5,5a,6,8,8a,9-hexahydro-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-2,5-dihydro-2,5-dioxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

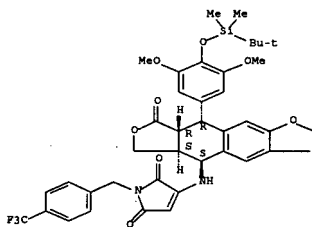


RN 846058-81-9 HCAPLUS
 CN 1H-Pyrrole-1-acetic acid, 3-[[[(5S,5aS,8aR,9R)-9-[4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-3,5-dimethoxyphenyl]-5,5a,6,8,8a,9-hexahydro-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-2,5-dihydro-2,5-dioxo-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

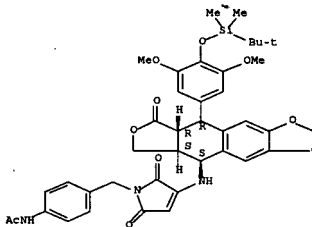
RN 846058-73-9 HCAPLUS
 CN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-9-[4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-3,5-dimethoxyphenyl]-5,5a,6,8,8a,9-hexahydro-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-1-[(4-(trifluoromethyl)phenyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



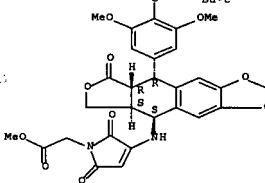
RN 846058-75-1 HCAPLUS
 CN Acetamide, N-[4-[[[3-[[[(5S,5aS,8aR,9R)-9-[4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-3,5-dimethoxyphenyl]-5,5a,6,8,8a,9-hexahydro-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl]methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



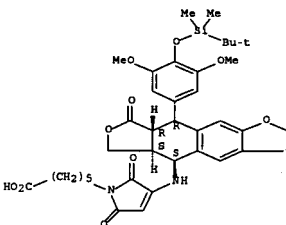
RN 846058-77-3 HCAPLUS
 CN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-9-[4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-3,5-dimethoxyphenyl]-5,5a,6,8,8a,9-hexahydro-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-1-[2-hydroxy-1-(hydroxymethyl)ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



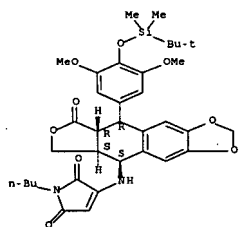
RN 846058-83-1 HCAPLUS
 CN 1H-Pyrrole-1-hexanoic acid, 3-[[[(5S,5aS,8aR,9R)-9-[4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-3,5-dimethoxyphenyl]-5,5a,6,8,8a,9-hexahydro-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-2,5-dihydro-2,5-dioxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 846058-85-3 HCAPLUS
 CN 1H-Pyrrole-2,5-dione, 1-butyl-3-[[[(5S,5aS,8aR,9R)-9-[4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-3,5-dimethoxyphenyl]-5,5a,6,8,8a,9-hexahydro-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

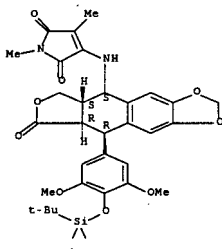


RN 846058-88-6 HCAPLUS

CN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-9-[4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-3,5-dimethoxyphenyl]-5,5a,6,8,8a,9-hexahydro-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-1,4-dimethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

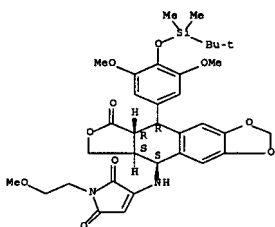


PAGE 2-A



RN 846058-90-0 HCAPLUS

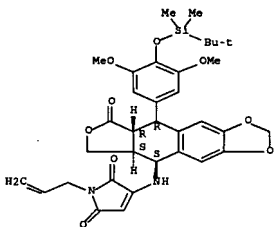
CN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-9-[4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-3,5-dimethoxyphenyl]-5,5a,6,8,8a,9-hexahydro-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]methylamino]-1,4-dimethyl- (9CI) (CA INDEX NAME)



RN 846058-96-6 HCAPLUS

CN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-9-[4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-3,5-dimethoxyphenyl]-5,5a,6,8,8a,9-hexahydro-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-1-(2-propenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



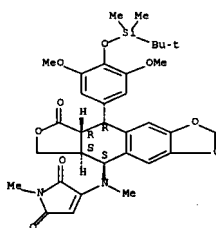
RN 846058-98-8 HCAPLUS

CN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-9-[4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-3,5-dimethoxyphenyl]-5,5a,6,8,8a,9-hexahydro-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-1-(2-piperidinylethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

1-methyl- (9CI) (CA INDEX NAME)

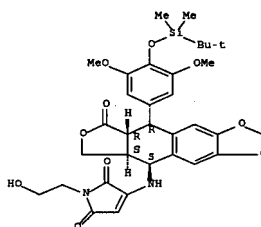
Absolute stereochemistry.



RN 846058-92-2 HCAPLUS

CN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-9-[4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-3,5-dimethoxyphenyl]-5,5a,6,8,8a,9-hexahydro-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-1-(2-hydroxyethyl)- (9CI) (CA INDEX NAME)

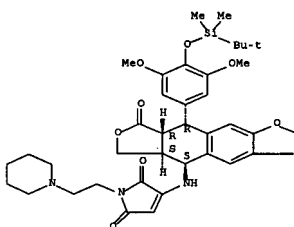
Absolute stereochemistry.



RN 846058-94-4 HCAPLUS

CN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-9-[4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-3,5-dimethoxyphenyl]-5,5a,6,8,8a,9-hexahydro-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-1-(2-methoxyethyl)- (9CI) (CA INDEX NAME)

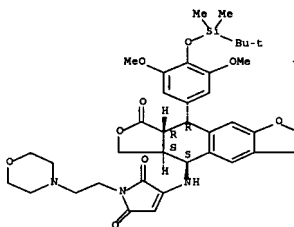
Absolute stereochemistry.



RN 846059-00-5 HCAPLUS

CN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-9-[4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-3,5-dimethoxyphenyl]-5,5a,6,8,8a,9-hexahydro-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-1-(4-morpholinylethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

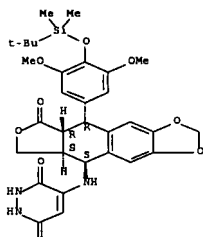


RN 846059-02-7 HCAPLUS

CN 3,6-Pyridazinedione, 4-[[[(5S,5aS,8aR,9R)-9-[4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-3,5-dimethoxyphenyl]-5,5a,6,8,8a,9-hexahydro-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-1,2-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

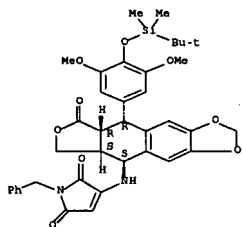
IT 846058-69-3P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of new 9-aminopodophyllotoxin derivs. and antitumor pharmaceutical compns. containing them)

RN 846058-69-3 HCAPLUS

CN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-9-[4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-3,5-dimethoxyphenyl]-5,5a,6,8,8a,9-hexahydro-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-1-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



10/576201

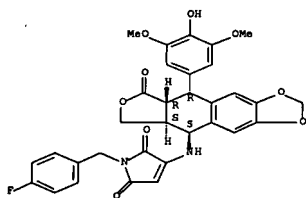
43 / 138

Robert Havlin

RN 846058-72-8 HCAPLUS

CN 1H-Pyrrole-2,5-dione, 3-[[[(4-fluorophenyl)methyl]-3-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]- (9CI) (CA INDEX NAME)

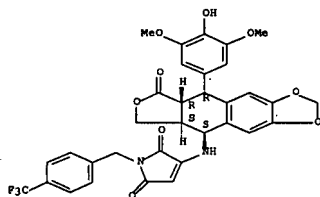
Absolute stereochemistry.



RN 846058-74-0 HCAPLUS

CN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-1-[[4-(trifluoromethyl)phenyl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 846058-76-2 HCAPLUS

CN Acetamide, N-[4-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl]methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

10/576201

42 / 138

Robert Havlin

IT 846058-68-2P 846058-70-4P 846058-72-8P

846058-74-0P 846058-76-2P 846058-78-4P

846058-80-6P 846058-82-0P 846058-84-2P

846058-86-4P 846058-87-5P 846058-89-7P

846058-91-1P 846058-93-3P 846058-95-5P

846058-97-7P 846058-99-9P 846059-01-6P

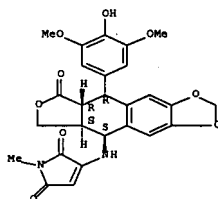
846059-03-8P 846059-04-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of new 9-aminopodophyllotoxin derivs. and antitumor pharmaceutical compns. containing them)

RN 846058-68-2 HCAPLUS

CN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-1-methyl]- (9CI) (CA INDEX NAME)

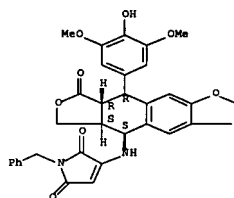
Absolute stereochemistry.



RN 846058-70-6 HCAPLUS

CN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-1-(phenylmethyl)- (9CI) (CA INDEX NAME)

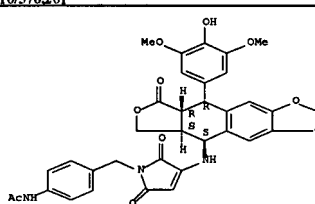
Absolute stereochemistry.



10/576201

44 / 138

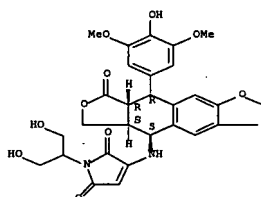
Robert Havlin



RN 846058-78-4 HCAPLUS

CN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-1-[2-hydroxy-1-(hydroxymethyl)ethyl]- (9CI) (CA INDEX NAME)

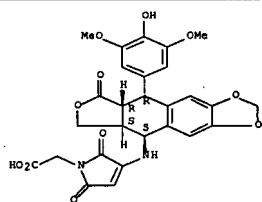
Absolute stereochemistry.



RN 846058-80-8 HCAPLUS

CN 1H-Pyrrole-1-acetic acid, 3-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-2,5-dihydro-2,5-dioxo- (9CI) (CA INDEX NAME)

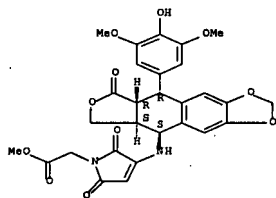
Absolute stereochemistry.



RN 846058-82-0 HCAPLUS

CN 1H-Pyrrole-1-acetic acid, 3-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-2,5-dihydro-2,5-dioxo-, methyl ester (9CI) (CA INDEX NAME)

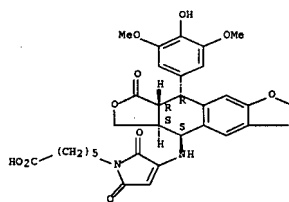
Absolute stereochemistry.



RN 846058-84-2 HCAPLUS

CN 1H-Pyrrole-1-hexanoic acid, 3-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-2,5-dihydro-2,5-dioxo- (9CI) (CA INDEX NAME)

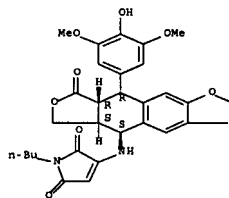
Absolute stereochemistry.



RN 846058-86-4 HCAPLUS

CN 1H-Pyrrole-2,5-dione, 1-butyl-3-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]- (9CI) (CA INDEX NAME)

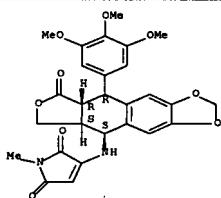
Absolute stereochemistry.



RN 846058-87-5 HCAPLUS

CN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-8-oxo-9-(3,4,5-trimethoxyphenyl)furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-1-methyl- (9CI) (CA INDEX NAME)

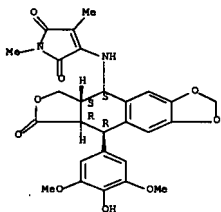
Absolute stereochemistry.



RN 846058-89-7 HCAPLUS

CN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-1,4-dimethyl- (9CI) (CA INDEX NAME)

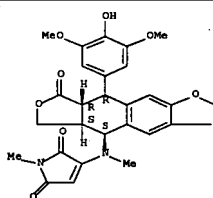
Absolute stereochemistry.



RN 846058-91-1 HCAPLUS

CN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]methylamino]-1-methyl- (9CI) (CA INDEX NAME)

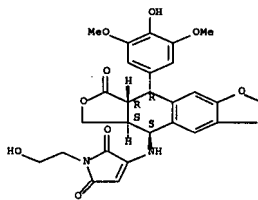
Absolute stereochemistry.



RN 846058-93-3 HCAPLUS

CN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-1-(2-hydroxyethyl)- (9CI) (CA INDEX NAME)

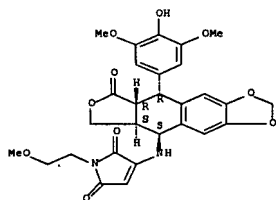
Absolute stereochemistry.



RN 846058-95-5 HCAPLUS

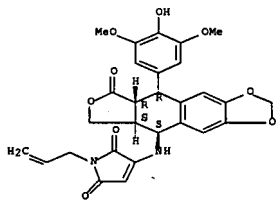
CN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-1-(2-methoxyethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



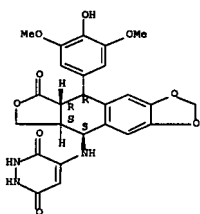
RN 846058-97-7 HCAPLUS
CN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl)amino]-1-(2-propenyl)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



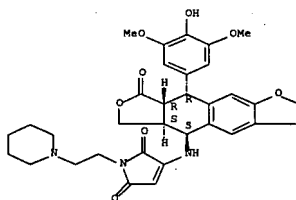
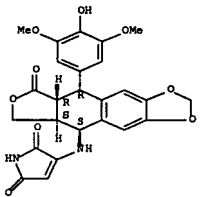
RN 846058-99-9 HCAPLUS
CN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl)amino]-1-(2-(1-piperidinyl)ethyl)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



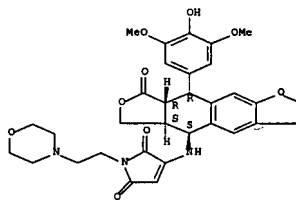
RN 846059-04-9 HCAPLUS
CN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 846059-01-6 HCAPLUS
CN 1H-Pyrrole-2,5-dione, 3-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl)amino]-1-(2-(4-morpholinyl)ethyl)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



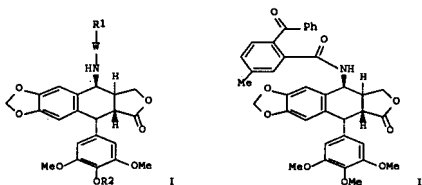
RN 846059-03-8 HCAPLUS
CN 3,6-Pyridazinedione, 4-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl)amino]-1,2-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

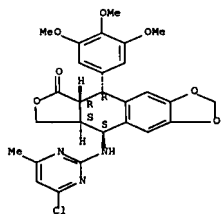
L9 ANSWER 5 OF 42 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:718251 HCAPLUS Full-text
DOCUMENT NUMBER: 141:225206
TITLE: Preparation of 4β-amino and 4β-amido derivs. of podophyllotoxin and 4'-O-demethylepipodophyllotoxin as antitumor agents
INVENTOR(S): Kamal, Ahmed; Arifuddin, Mohammed; Kumar, Banala
PATENT ASSIGNEE(S): Ashwani; Dastidar, Sunanda Ghose
Ranbaxy Laboratories Limited, India; Indian Institute of Chemical Technology
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004073375	A2	20040902	WO 2004-1B376	20040213
WO 2004073375	A8	20041021		
WO 2004073375	A3	20041223		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NA, NI, NO, NZ, OM, PA, PE, PG, PH, PK, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, SM, SN, SR, ST, SV, SZ, TD, TG, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VE, VU, WO, WS, XG, YU, ZA, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CP, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, NG, SN, TD, TG				
IN 2003DB00139	A	20050311	IN 2003-DE139	20030218
EP 1599485	A2	20051130	EP 2004-710936	20040213
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2007066837	A1	20070322	US 2006-545838	20061201
PRIORITY APPLN. INFO:			IN 2003-DE139	A 20030218
			WO 2004-1B376	W 20040213
OTHER SOURCE(S):	CASREACT 141:225206; MARPAT 141:225206			
GI				



AB This invention relates to podophyllotoxin derivs., I (R1 = alkyl, haloalkyl, aryl, heterocyclic, CH2Y where Y = halogen, amino, nitro, or hydroxyl, and n = 1-4) or (CH2)mZ (where Z = pyridine, piperidine, or morpholine, and m = 1-4); W = no atom, CO, SC, or SO2; R2 = H, or C1-C3 alkyl), which are useful for the treatment of tumors. Processes for the preparation of the compds. disclosed herein, pharmaceutical compns. containing these compds., and methods for treating tumors are provided. Thus, 4β-aminopodophyllotoxin was treated with 4-methylbenzophenone-2- carboxylic acid and dicyclohexylcarbodiimide in dichloromethane to give II.
IT 748151-11-3P 748151-14-6P 748151-17-9P
748151-19-3P 748151-21-5P
RI: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USBS (Uses)
(preparation of 4β-amino and 4β-amido derivs. of podophyllotoxin and 4'-O-demethylepipodophyllotoxin as antitumor agents)
RN 748151-11-3 HCAPLUS
CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[(4-chloro-6-methyl-2-pyrimidinyl)amino]-5,8,8a,9-tetrahydro-5-(3,4,5-trimethoxyphenyl)-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

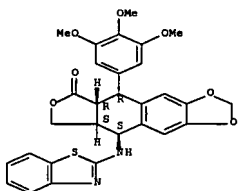
Absolute stereochemistry. Rotation (-).



RN 748151-14-6 HCAPLUS

CN Puro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[(2-benzothiazolylamino)-5,8,8a,9-tetrahydro-5-(3,4,5-trimethoxyphenyl)-, (5R,5aR,8aS,9S)]- (9CI) (CA INDEX NAME)

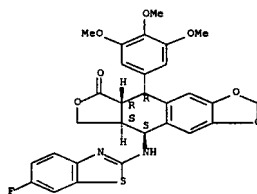
Absolute stereochemistry. Rotation (-).



RN 748151-17-9 HCAPLUS

CN Puro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[(6-fluoro-2-mercaptomethyl)-4-pyrimidinylamino]-5,8,8a,9-tetrahydro-5-(3,4,5-trimethoxyphenyl)-, (5R,5aR,8aS,9S)]- (9CI) (CA INDEX NAME)

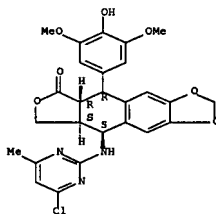
Absolute stereochemistry.



RN 748151-19-1 HCAPLUS

CN Puro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[(4-chloro-6-methyl-2-pyrimidinylamino)-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aS,9S)]- (9CI) (CA INDEX NAME)

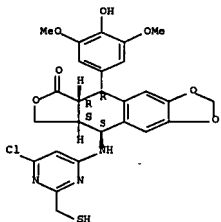
Absolute stereochemistry. Rotation (-).



RN 748151-21-5 HCAPLUS

CN Puro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[(6-chloro-2-mercaptomethyl)-4-pyrimidinylamino]-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aS,9S)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 6 OF 42 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:561483 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 141:218308

TITLE: Anti-AIDS agents. Part 61: Anti-HIV activity of new podophyllotoxin derivatives

AUTHOR(S): Zhu, Xiao-Kang; Guan, Dian; Xiao, Zhiyan; Cosentino, L. Mark; Lee, Kuo-Hsiung

CORPORATE SOURCE: Natural Products Laboratory, School of Pharmacy, University of North Carolina, Chapel Hill, NC, 27599-7360, USA

SOURCE: Bioorganic & Medicinal Chemistry (2004), 12(15), 4267-4273

CODEN: BMCEP; ISSN: 0960-0896

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 141:218308

AB A series of novel podophyllotoxin deriva. containing structural modifications at C-4 (7-14), C-4' (16-17), and the methylenedioxy A-ring (23-28) was synthesized and tested for inhibition of HIV replication. Four of these compds. (25-28) were previously reported to show EC50 values of <0.001 µg/mL and therapeutic index (TI) values >120. Three of the newly tested compds. (8, 12, and 20) showed good activity with EC50 values of 0.012, <0.001, and 0.389 µg/mL and TI values of 19.1, >16, and 19.4, resp. A comparison of the anti-HIV activity of these deriva. suggested that an opened A-ring with 6,7-dimethoxy substitution and a 4'-demethylated B ring enhanced anti-HIV activity.

IT 242144-41-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL

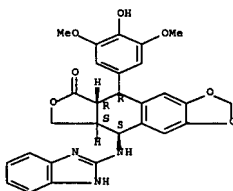
(Biological study); PREP (Preparation)

(synthesis and structure activity relationships of anti-HIV activity of new podophyllotoxin deriva.)

RN 242144-41-8 HCAPLUS

CN Puro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[(1H-benzimidazol-2-ylamino)-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aS,9S)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 7 OF 42 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:333694 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 140:339123

TITLE: Preparation of podophyllotoxin derivatives as anticancer compounds

INVENTOR(S): Shi, Qian; Wang, Rui-kang; Oyama, Masayoshi; Vance, John Robert; Chen, Ming S.

PATENT ASSIGNEE(S): Plantaceutica Inc., USA

SOURCE: PCT Int. Appl., 52 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

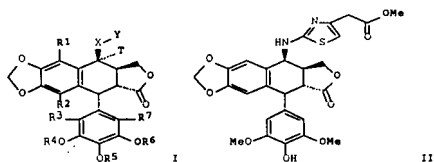
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004033423	A2	20040422	WO 2003-082324	20031014
WO 2004033423	A3	20040729		
W:	AB, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, GU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SN, SV, TH, TM, TR, TT, TZ, UA, UG, US, UZ, VC, VE, VN, YU, ZA, ZM, ZW			
RW:	GH, GN, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KO, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TO			
CA 2501901	A1	20040422	CA 2003-2501901	20031014
AU 2003300385	A1	20040504	AU 2003-300385	20031014
US 2004138288	A1	20040715	US 2003-685870	20031014
US 4903133	B2	20050607		
EP 1610790	A2	20060104	EP 2003-808232	20031014
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IS, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
JP 2006503079	T	20060126	JP 2004-543785	20031014
PRIORITY APPLN. INFO.:			US 2002-417785P	P 20021011
			WO 2003-082324	W 20031014

OTHER SOURCE(S): MARPAT 140:339123

OI



AB Podophyllotoxin deriva., such as I [R1, R2, R3, R7 = H, alkyl; R4, R6 = alkyl; R5 = H, P(O)(ORa)2; Ra = H, alkyl; T = H; XT = N; X = bond, O, S, NRb; Rb = H, alkyl; Y = 5-membered heteroaryl or heterocyclyl, optionally substituted with one or more halogen, alkyl, cyclyl, aryl, heteroaryl, heterocyclyl, etc.], were prepared for their therapeutic use as anticancer agents. Thus, podophyllotoxin derivative II was prepared via a multistep synthetic sequence starting from 4'-demethyl-4 β -bromo-4 α -deoxypodophyllotoxin (prepared from podophyllotoxin), 2-aminothiazole-4- acetic acid and (trimethylsilyl)diazomethane. II showed unexpectedly high levels of cellular protein-linked DNA breaks (PLDB) induction in KB cells when tested at 5 μ g/mL. This invention also features a method for treating cancer.

IT 127882-77-3P 681138-02-3P 681138-04-5P
681138-06-7P 681138-07-8P 681138-08-9P
681138-09-0P 681138-10-3P 681138-13-6P
681138-14-7P 681138-15-8P 681138-16-9P
681138-17-0P 681138-18-1P 681138-19-2P
681138-20-5P 681138-21-6P 681138-22-7P
681138-23-8P 681138-24-9P 681138-25-0P
681138-28-3P 681138-29-4P 681138-30-7P
681138-31-6P 681138-32-9P 681138-33-0P
681138-34-1P 681138-35-2P 681138-36-3P
681138-37-4P 681138-39-6P 681138-40-9P
681138-41-0P 681138-42-1P 681138-43-2P
681138-44-3P 681138-45-4P 681138-46-5P
681138-47-6P

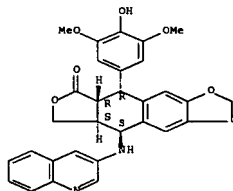
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of podophyllotoxin deriva. as anticancer compds.)

RN 127882-77-3 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8a,9-tetrahydro-4-(4-hydroxy-3,5-dimethoxyphenyl)-9-(3-quinolinylamino)-, (5R,5aR,8aS,9S)-(9CI) (CA INDEX NAME)

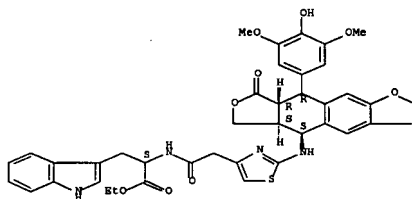
Absolute stereochemistry. Rotation (-).



RN 681138-02-3 HCAPLUS

CN L-Tryptophan, N-[[2-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-4-thiazolyl]acetyl]-, ethyl ester (9CI) (CA INDEX NAME)

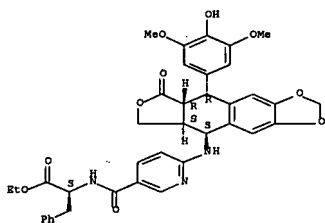
Absolute stereochemistry.



RN 681138-04-5 HCAPLUS

CN L-Phenylalanine, N-[[[6-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-3-pyridinyl]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

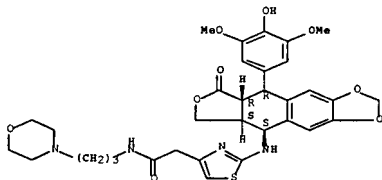
Absolute stereochemistry.



RN 681138-06-7 HCAPLUS

CN 4-Thiazoleacetamide, 2-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-N-[3-(4-morpholinyl)propyl]- (9CI) (CA INDEX NAME)

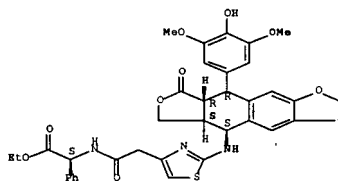
Absolute stereochemistry.



RN 681138-07-8 HCAPLUS

CN Benzenesacetic acid, α -[[[2-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-4-thiazolyl]acetyl]amino]-, ethyl ester, (aS)-(9CI) (CA INDEX NAME)

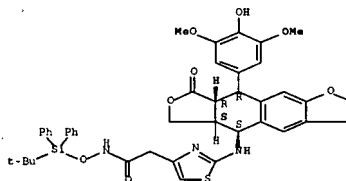
Absolute stereochemistry.



RN 681138-08-9 HCAPLUS

CN 4-Thiazoleacetamide, N-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]-2-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]- (9CI) (CA INDEX NAME)

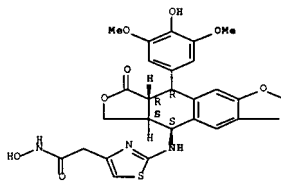
Absolute stereochemistry.



RN 681138-09-0 HCAPLUS

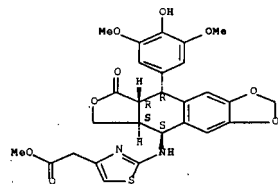
CN 4-Thiazoleacetamide, 2-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-N-hydroxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



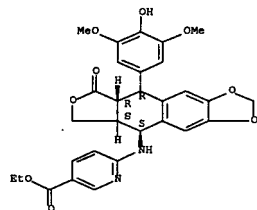
RN 681138-10-3 HCAPLUS
 CN 4-Thiazoleacetic acid, 2-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl)amino]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



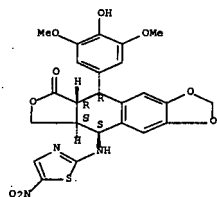
RN 681138-13-6 HCAPLUS
 CN 3-Pyridinecarboxylic acid, 6-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl)amino]-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



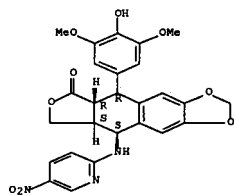
RN 681138-14-7 HCAPLUS
 CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[(3-methyl-5-isothiazolyl)amino]-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



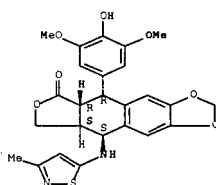
RN 681138-17-0 HCAPLUS
 CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[(5-nitro-2-pyridinyl)amino]-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



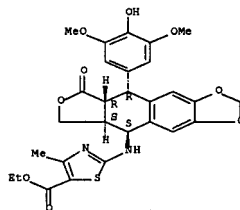
RN 681138-18-1 HCAPLUS
 CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[[5-(methylthio)-1,3,4-thiadiazol-2-yl]amino]-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



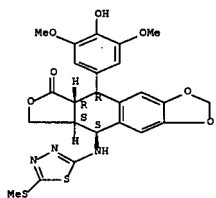
RN 681138-15-8 HCAPLUS
 CN 5-Thiazolecarboxylic acid, 2-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl)amino]-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



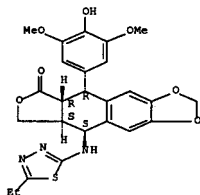
RN 681138-16-9 HCAPLUS
 CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[(5-nitro-2-thiazolyl)amino]-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



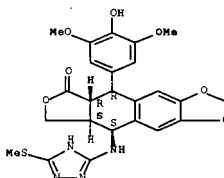
RN 681138-19-2 HCAPLUS
 CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[(5-ethyl-1,3,4-thiadiazol-2-yl)amino]-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 681138-20-5 HCAPLUS
 CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[[5-(methylthio)-1H-1,2,4-triazol-3-yl]amino]-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

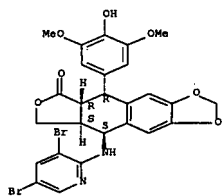
Absolute stereochemistry.



RN 681138-21-6 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[(3,5-dibromo-2-pyridinyl)amino]-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aS,9S) - (9CI) (CA INDEX NAME)

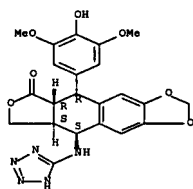
Absolute stereochemistry.



RN 681138-22-7 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-(1H-tetrazol-5-ylamino)-, (5R,5aR,8aS,9S) - (9CI) (CA INDEX NAME)

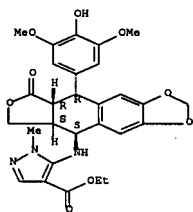
Absolute stereochemistry.



RN 681138-23-8 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[(1-methyl-1H-benzimidazol-2-yl)amino]-, (5R,5aR,8aS,9S) - (9CI) (CA INDEX NAME)

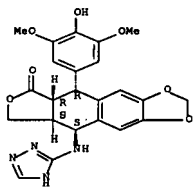
Absolute stereochemistry.



RN 681138-28-3 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-(1H-1,2,4-triazol-3-ylamino)-, (5R,5aR,8aS,9S) - (9CI) (CA INDEX NAME)

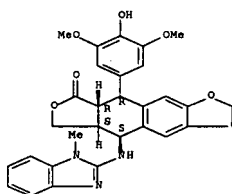
Absolute stereochemistry.



RN 681138-29-4 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[(3-methyl-5-isoxazolyl)amino]-, (5R,5aR,8aS,9S) - (9CI) (CA INDEX NAME)

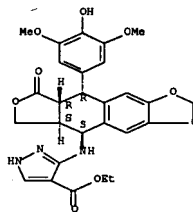
Absolute stereochemistry.



RN 681138-24-9 HCAPLUS

CN 1H-Pyrazole-4-carboxylic acid, 3-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-, ethyl ester (9CI) (CA INDEX NAME)

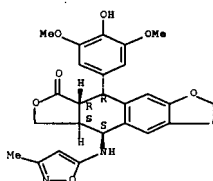
Absolute stereochemistry.



RN 681138-25-0 HCAPLUS

CN 1H-Pyrazole-4-carboxylic acid, 5-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-1-methyl-, ethyl ester (9CI) (CA INDEX NAME)

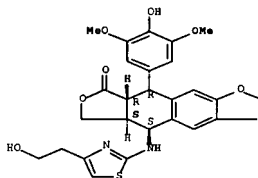
Absolute stereochemistry.



RN 681138-30-7 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[(4-(2-hydroxyethyl)-2-thiazolyl)amino]-, (5R,5aR,8aS,9S) - (9CI) (CA INDEX NAME)

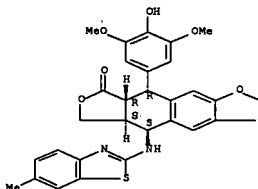
Absolute stereochemistry.



RN 681138-31-8 HCAPLUS

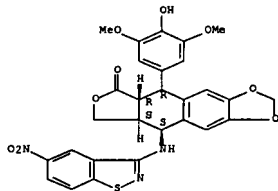
CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[(6-methyl-2-benzothiazolyl)amino]-, (5R,5aR,8aS,9S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



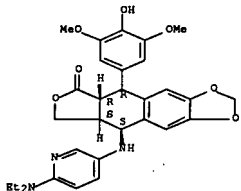
RN 681138-32-9 HCAPLUS
CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[(5-nitro-1,2-benzisothiazol-3-yl)amino]-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



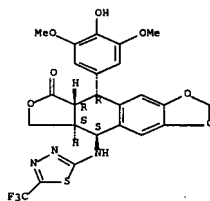
RN 681138-33-0 HCAPLUS
CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[[6-(diethylamino)-3-pyridinyl]amino]-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 681138-34-1 HCAPLUS
CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[[5-(trifluoromethyl)-1,3,4-thiadiazol-2-yl]amino]-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

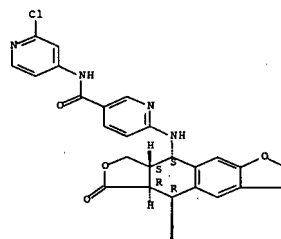
Absolute stereochemistry.



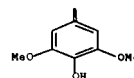
RN 681138-35-2 HCAPLUS
CN 3-Pyridinecarboxamide, N-(2-chloro-4-pyridinyl)-6-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



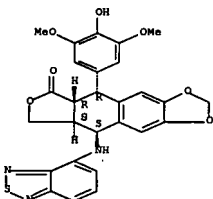
PAGE 2-A



RN 681138-36-3 HCAPLUS

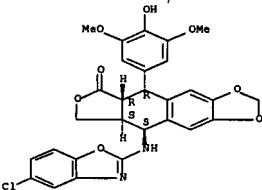
RN 681138-37-4 HCAPLUS
CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[(2,1,3-benzothiadiazol-4-ylamino)-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



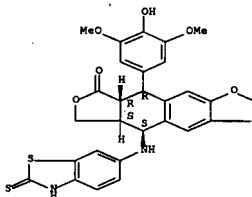
RN 681138-37-4 HCAPLUS
CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[[5-chloro-2-benzoxazolyl]amino]-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



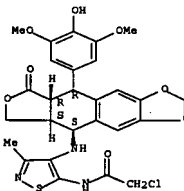
RN 681138-39-6 HCAPLUS
CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[[2,3-dihydro-2-thioxo-6-benzothiazolyl]amino]-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



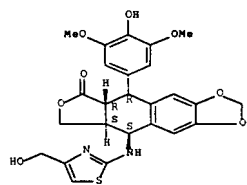
RN 681138-40-9 HCAPLUS
CN Acetamide, 2-chloro-N-[4-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-3-methyl-5-isothiazolyl]-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 681138-41-0 HCAPLUS
CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[[4-(hydroxymethyl)-2-thiazolyl]amino]-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

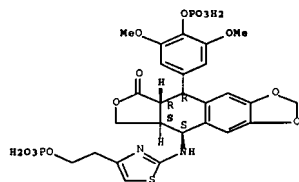
Absolute stereochemistry.



RN 681138-42-1 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5-[3,5-dimethoxy-4-(phosphonooxy)phenyl]-5,8,8a,9-tetrahydro-9-[[4-[2-(phosphonooxy)ethyl]-2-thiazolyl]amino]-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

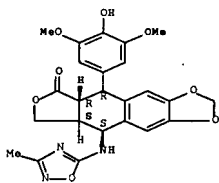
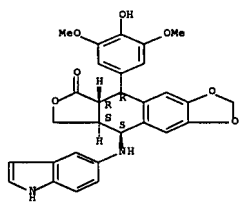
Absolute stereochemistry.



RN 681138-43-2 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-(1H-indol-5-ylamino)-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

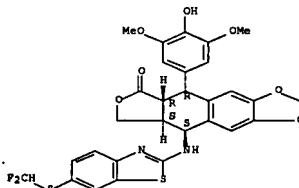
Absolute stereochemistry.



RN 681138-47-6 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[[6-[(difluoromethyl)thio]-2-benzothiazolyl]amino]-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 681138-01-2 681138-03-4 681138-05-6

681138-12-5

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USRS (Uses) (preparation of podophyllotoxin derive. as anticancer compds.)

RN 681138-01-2 HCAPLUS

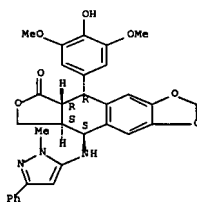
CN L-Tryptophan, N-[[2-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-4-thiazolyl]acetyl]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 681138-44-3 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[(1-methyl-3-phenyl-1H-pyrazol-5-yl)amino]-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

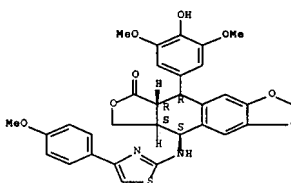
Absolute stereochemistry.



RN 681138-45-4 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[[4-(4-methoxyphenyl)-2-thiazolyl]amino]-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

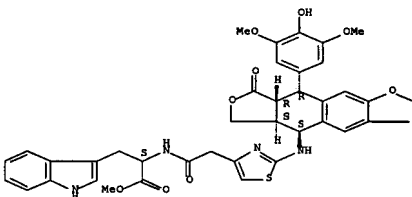
Absolute stereochemistry.



RN 681138-46-5 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[(3-methyl-1,2,4-oxadiazol-5-yl)amino]-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

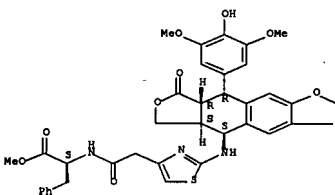
Absolute stereochemistry.



RN 681138-03-4 HCAPLUS

CN L-Phenylalanine, N-[[2-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-4-thiazolyl]acetyl]-, methyl ester (9CI) (CA INDEX NAME)

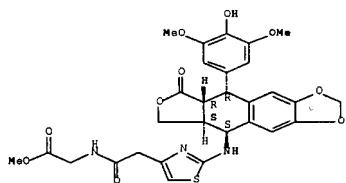
Absolute stereochemistry.



RN 681138-05-6 HCAPLUS

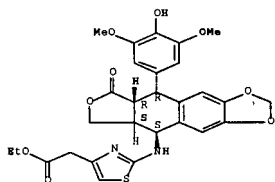
CN Glycine, N-[[2-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-4-thiazolyl]acetyl]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 681138-12-5 HCAPLUS
CN 4-Thiazoleacetic acid, 2-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-2-ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

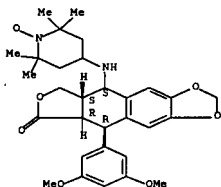


L9 ANSWER 8 OF 42 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:72704 HCAPLUS Full-text
DOCUMENT NUMBER: 141:17025
TITLE: GP7 can induce apoptotic DNA fragmentation of human leukemia cells through caspase-3-dependent and -independent pathways
AUTHOR(S): Qi, She-Ning; Yoshida, Akira; Wang, Zi-Ren; Ueda, Takanori
CORPORATE SOURCE: School of Life Science, Lanzhou University, Lanzhou, 730000, Peop. Rep. China
SOURCE: International Journal of Molecular Medicine (2004), 13(1), 163-167
CODEN: IJMMPG; ISSN: 1107-3756
PUBLISHER: International Journal of Molecular Medicine
DOCUMENT TYPE: Journal
LANGUAGE: English
AB GP7 (4-[[[(2'',2'',6'',6'')-tetramethyl-1''-piperidin-4''-yl]methoxy (epipodophyllotoxin), a new spin-labeled derivative of podophyllotoxin, is a promising anticancer drug of podophyllotoxin class. The primary effect of GP7 is the anticancer activity on transplanted mouse tumors and cultured tumor cells. However, its mol. mechanism of action is still obscure. In this study, we investigated the activity of GP7 to induce apoptosis in human leukemia HL-60 and Jurkat cells. Apoptosis was determined by

AB Seven pairs of diastereoisomers of podophyllum lignans at the C4 position, including three pairs of spin-labeled compds., have been separated within 20 min by MEKC with 20 mM sodium tetraborate-30 mM SDS-10% (volume/volume) 2-propanol (pH 9.5-9.7) as running buffer. The migration behavior of the compds. was explained satisfactorily on the basis of on their polarity and geometry. The method can be used to identify the purity of the lignans, and to determine the C-8-H configurations of the spin-labeled deriva.

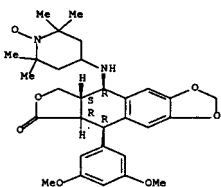
IT 579495-96-8 579495-97-9
RL: ANT (Analyte); ANST (Analytical study)
(micellar electrokinetic capillary chromatog. separation of diastereoisomers of podophyllum lignans at the C4 position)
RN 579495-96-8 HCAPLUS
CN 1-Piperidin-4-yl-[[[(5S,5aS,8aR,9R)-9-(3,5-dimethoxyphenyl)-5,5a,6,8,8a,9-hexahydro-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 579495-97-9 HCAPLUS
CN 1-Piperidin-4-yl-[[[(5S,5aS,8aR,9R)-9-(3,5-dimethoxyphenyl)-5,5a,6,8,8a,9-hexahydro-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

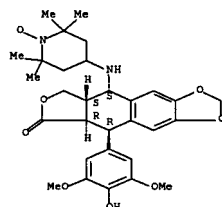
L9 ANSWER 10 OF 42 HCAPLUS COPYRIGHT 2007 ACS on STN

detection of DNA fragmentation in agarose gel electrophoresis. GP7 induced apoptotic DNA fragmentation of HL-60 and Jurkat cells in time- and dose-dependent manner. We further investigated the activity of caspase-3 in GP7-induced apoptotic DNA fragmentation of HL-60 and Jurkat cells. GP7 also induced time- and dose-dependent caspase-3 activation in both cell lines, and the kinetics of caspase-3 activation induced by GP7 was well correlated with that of apoptotic DNA fragmentation. To determine the role of caspase-3 in GP7-induced apoptotic DNA fragmentation, we examined the effect of specific caspase-3 inhibitor, Ac-DEVD-CHO, on GP7-induced apoptotic DNA fragmentation. Ac-DEVD-CHO prevented GP7-induced caspase-3 activation in both HL-60 and Jurkat cells, however, it only inhibited GP7-induced apoptotic internucleosomal DNA fragmentation in HL-60 cells. We then employed L-carnitine to investigate the role of caspase-3 in GP7-induced apoptotic DNA fragmentation. L-carnitine treatment prevented GP7-induced caspase-3 activation in both cell lines in a dose-dependent manner. Similar to Ac-DEVD-CHO, L-carnitine only inhibited GP7-induced apoptotic internucleosomal DNA fragmentation in HL-60 cells. These findings suggest that GP7 exerts an anti-leukemic effect by both caspase-3-dependent and -independent apoptotic signaling pathways.

IT 125670-69-1, GP7
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(GP7-induced apoptotic DNA fragmentation of human leukemia cells through caspase-3-dependent and -independent pathways)

RN 125670-69-1 HCAPLUS
CN 1-Piperidin-4-yl-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-2,2,6,6-tetramethyl- (CA INDEX NAME)

Absolute stereochemistry.



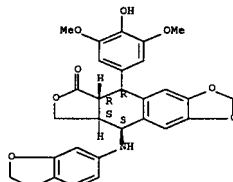
REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 9 OF 42 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:12453 HCAPLUS Full-text
DOCUMENT NUMBER: 139:185779
TITLE: Micellar electrokinetic capillary chromatographic separation of diastereoisomers of podophyllum lignans at the C4 position
AUTHOR(S): Liu, Shuhui; Tian, Xuan; Chen, Xingguo; Hu, Zhide
CORPORATE SOURCE: Department of Chemistry, Lanzhou University, Lanzhou, 730000, Peop. Rep. China
SOURCE: Chromatographia (2002), 55(11/12), 687-691
CODEN: CHROB; ISSN: 0009-5808
PUBLISHER: Friedrich Vieweg & Sohn Verlagsgesellschaft mbH
DOCUMENT TYPE: Journal
LANGUAGE: English

AB We have applied a variable selection k nearest neighbor quant. structure-activity relationship (kNN QSAR) method to develop predictive QSAR models for 157 epipodophyllotoxins synthesized previously in our ongoing effort to develop potential anticancer agents. QSAR models were generated using multiple topol. descriptors of chemical structures, including mol. connectivity indexes (MCI) and mol. operating environment descriptors. The 157 compds. were separated into several training and test sets. The robustness of QSAR models was characterized by the values of the internal leave one out cross-validated R2 (q2) for the training set and external predictive R2 for the test set. The significance of the training set models was confirmed by statistically higher values of q2 for the original data set as compared to q2 values for the same data set with randomly shuffled activities. kNN QSAR models were compared with those obtained with the comparative mol. field anal. method; the kNN QSAR approach afforded models with higher values of both q2 and predictive R2. One of the best models obtained from kNN anal. using MCI as descriptors provided q2 and predictive R2 values of 0.60 and 0.62, resp. QSAR models developed in these studies shall aid in future design of novel potent epipodophyllotoxin deriva.

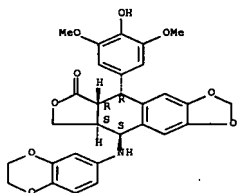
IT 127882-68-2 127882-69-3 127882-75-1
127882-76-2 127882-77-3 147139-62-0
152833-13-1 152833-17-9 152886-04-9
155157-47-4 242144-41-9
RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(use of variable selection k nearest neighbor quant. structure-activity relationship method to develop predictive QSAR models for epipodophyllotoxins deriva. as potential anticancer agents)
RN 127882-68-2 HCAPLUS
CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-(1,3-benzodioxol-5-ylamino)-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



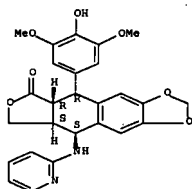
RN 127882-69-3 HCAPLUS
 CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[[2,3-dihydro-1,4-benzodioxin-6-yl)amino]-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aS,9S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



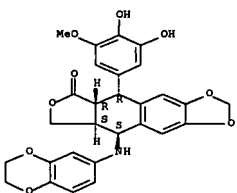
RN 127882-75-1 HCAPLUS
 CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-(2-pyridinylamino)-, (5R,5aR,8aS,9S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



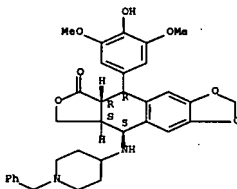
RN 127882-76-2 HCAPLUS
 CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-(3-pyridinylamino)-, (5R,5aR,8aS,9S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



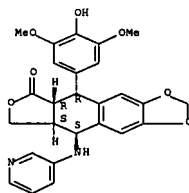
RN 152833-13-1 HCAPLUS
 CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[[1-(phenylmethyl)-4-piperidinyl]amino]-, (5R,5aR,8aS,9S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



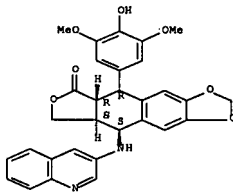
RN 152833-17-5 HCAPLUS
 CN 1-Piperidinecarboxylic acid, 4-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-6-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl)amino]-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



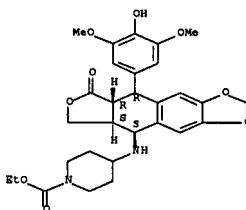
RN 127882-77-3 HCAPLUS
 CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-(3-quinolinylamino)-, (5R,5aR,8aS,9S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



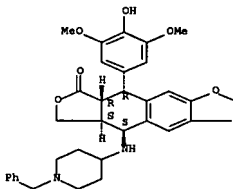
RN 147199-62-0 HCAPLUS
 CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[[2,3-dihydro-1,4-benzodioxin-6-yl)amino]-5-(3,4-dihydroxy-5-methoxyphenyl)-5,8,8a,9-tetrahydro-, (5R,5aR,8aS,9S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 152886-04-9 HCAPLUS
 CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[[1-(phenylmethyl)-4-piperidinyl]amino]-, dihydrochloride, (5R,5aR,8aS,9S) - (9CI) (CA INDEX NAME)

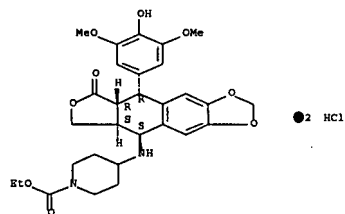
Absolute stereochemistry.



• 2 HCl

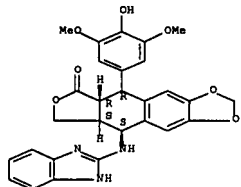
RN 155157-47-4 HCAPLUS
 CN 1-Piperidinecarboxylic acid, 4-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-6-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl)amino]-, ethyl ester, dihydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 242144-41-8 HCAPLUS
 CN Puro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[(1H-benzimidazol-2-ylamino)-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



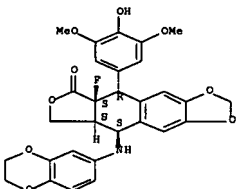
REFERENCE COUNT: 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

>> d ibib abs hitatr 11-
 YOU HAVE REQUESTED DATA FROM 32 ANSWERS - CONTINUE? Y/(N):Y

L9 ANSWER 11 OF 42 HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 2001:214544 HCAPLUS Full-text
 DOCUMENT NUMBER: 135:19486
 TITLE: Antitumor Agents. 207. Design, Synthesis, and Biological Testing of 4β-Anilino-2-fluoro-4'-demethylpodaophyllotoxin Analogues as Cytotoxic and Antiviral Agents
 AUTHOR(S): VanVleet, David S.; Tachibana, Yoko; Bastow, Kenneth F.; Huang, Eng-Shang; Lee, Kuo-Heung
 CORPORATE SOURCE: Natural Products Laboratory School of Pharmacy, University of North Carolina, Chapel Hill, NC, 27599-7360, USA

IT 342824-64-0P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and antineoplastic and antiviral activity of 4β-anilino-2-fluoro-4'-demethylpodaophyllotoxin analogues)
 RN 342824-64-0 HCAPLUS
 CN Puro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[(2,3-dihydro-1,4-benzodioxin-6-yl)amino]-5a-fluoro-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aS,8aS,9S)- (9CI) (CA INDEX NAME)

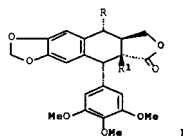
Absolute stereochemistry.



REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 12 OF 42 HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 2000:236644 HCAPLUS Full-text
 DOCUMENT NUMBER: 133:26571
 TITLE: 4-[(2',2'',6'',6''-Tetramethyl-1''-piperidinyl)oxy]amino]-4'-demethylepipodaophyllotoxin inducing NB4 cell apoptosis
 AUTHOR(S): Qi, She-Ning; Wan, Shun-Mei; Li, Xing-Yu; Li, Wen-Guang; Wang, Jing
 CORPORATE SOURCE: Inst. Hematology, Lanzhou Medical College, Lanzhou, 730000, Peop. Rep. China
 SOURCE: Zhongguo Yaolixue Yu Dulixue Zazhi (2000), 14(1), 62-64
 CODEN: ZYZZEW; ISSN: 1000-3002
 PUBLISHER: Zhongguo Yaolixue Yu Dulixue Zazhi Biarjibu
 DOCUMENT TYPE: Journal
 LANGUAGE: Chinese
 AB To explore the antitumor mechanism of 4-[(2',2'',6'',6''-tetramethyl-1''-piperidinyl)oxy]amino]-4'-demethylepipodaophyllotoxin (GP7) in apoptosis, the growth inhibition effects of GP7 on leukemic NB4 cell line, the morphol. of NB4 cell under light and electron microscope and the DNA ladder on agarose gel electrophoresis were observed. GP7 0.18-18 μmol/L-1 could markedly inhibit the growth and proliferation of NB4. GP7-induced apoptotic morphol. changes were found under both light and electron microscopes and the ladder was observed by agarose gel electrophoresis. Apoptosis rate increased as time prolonged. The peak of apoptosis rate (45.9±3.0)% was reached at 48 h when NB4 was being exposed to GP7 9 μmol/L-1. Apoptosis rate decreased to (26.7±1.5)% with prolonged exposure time to 72 h. There was a correlation between apoptosis rates and logarithmic GP7 concentration (t = 0.938, P < 0.05). We for the first time found that GP7 could induce NB4 apoptosis and the induction of apoptosis may be one of the anti-tumor mechanisms of GP7.
 IT 125670-69-1, GP7

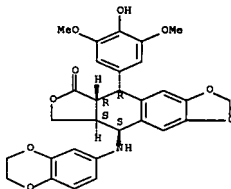
SOURCE: Journal of Medicinal Chemistry (2001), 44(9), 1422-1428
 CODEN: JMCMAR; ISSN: 0022-2623
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 135:19486
 GI



AB 2-Fluoropodaophyllotoxin (I, R = OH, R1 = F) and several 4β-anilino-2-fluoro-4'-O-demethyl analogs were synthesized and evaluated in both antineoplastic and antiviral assays. These compds. were moderately active against some cancer cell lines, but they were less active than the corresponding nonfluorinated analogs. I (R = OH, R1 = F) exhibited the best activity against KB carcinoma with a GI50 of approx. 30 nM. Most compds. exhibited moderate activity against HCMV with ID50 and ID90 values in the range of 1 μM and 4 μM, resp. Both I (R = OSiMe2Bu-t, R1 = H) and I (R = OH, R1 = F) showed an unusual 10-fold selectivity for HSV-2 compared to HSV-1.

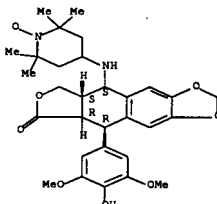
IT 127882-69-3
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
 (preparation and antineoplastic and antiviral activity of 4β-anilino-2-fluoro-4'-demethylpodaophyllotoxin analogues)
 RN 127882-69-3 HCAPLUS
 CN Puro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[(2,3-dihydro-1,4-benzodioxin-6-yl)amino]-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



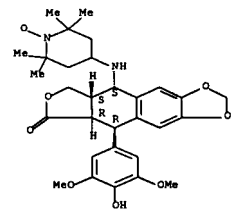
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
 ([tetramethylpiperidinyl)oxy]amino]demethylepipodaophyllotoxin inducing NB4 cell apoptosis)
 RN 125670-69-1 HCAPLUS
 CN 1-Piperidinyl-4-[[[(5S,5aS,8aR,9R)-5,5a,6,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-2,2,6,6-tetramethyl- (CA INDEX NAME)

Absolute stereochemistry.

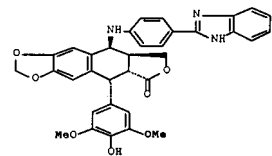


L9 ANSWER 13 OF 42 HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 1999:449460 HCAPLUS Full-text
 DOCUMENT NUMBER: 132:73293
 TITLE: Study on effect of GP7 against Raji cell apoptosis
 AUTHOR(S): Qi, Shening; Wang, Jing
 CORPORATE SOURCE: Institute of Hematology, Lanzhou Medical College, Lanzhou, 730000, Peop. Rep. China
 SOURCE: Zhongguo Yaolixue Tongbao (1999), 15(2), 187-188
 CODEN: ZYTQEA; ISSN: 1001-1978
 PUBLISHER: Anhui Yike Daxue Linchuan Yaoli Yanjiusuo
 DOCUMENT TYPE: Journal
 LANGUAGE: Chinese
 AB The effect of GP7 (4-[(2',2'',6'',6''-tetramethyl-1''-piperidinyl)oxy]amino]-4'-demethyl epipodaophyllotoxin) against Raji cell apoptosis was studied. The inhibitory test in solution medium, the inhibitory test in semi-solid medium and MTT method were used for evaluation of the effect of GP7 against Raji cell apoptosis. The results showed that GP7 significantly inhibited the growth of Raji cell, the formation of Raji clone cell and the proliferation of Raji cell in a concentration-dependent manner. The highest apoptosis index was at 9 μmol L-1.
 IT 125670-69-1, GP7
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (effect of GP7 against Raji cell apoptosis)
 RN 125670-69-1 HCAPLUS
 CN 1-Piperidinyl-4-[[[(5S,5aS,8aR,9R)-5,5a,6,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-2,2,6,6-tetramethyl- (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 14 OF 42 HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 1999:372441 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 131:199550
 TITLE: Antitumor Agents. 194. Synthesis and Biological Evaluations of 4-β-Mono-, -Di-, and -Tri-substituted Aniline-4'-O-demethylpodophyllotoxin and Related Compounds with Improved Pharmacological Profiles
 AUTHOR(S): Zhu, Xiao-Kang; Guan, Jian; Tachibana, Yoko; Bastow, Kenneth F.; Cho, Sung Jin; Cheng, Huey-Hwa; Cheng, Yung-Chi; Gurwith, Marc; Lee, Kuo-Hsiung
 CORPORATE SOURCE: Division of Medicinal Chemistry and Natural Products School of Pharmacy, University of North Carolina at Chapel Hill, Chapel Hill, NC, 27599, USA
 SOURCE: Journal of Medicinal Chemistry (1999), 42(13), 2441-2446
 CODEN: JMCMAR; ISSN: 0022-2623
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 GI



AB Several new 4-β-substituted 4'-O-demethyl-4-desoxypodophyllotoxins having mono-, di-, or trisubstituted anilines were prepared and evaluated as inhibitors of DNA topoisomerase II

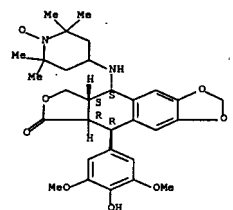
10/576201 91/138 Robert Havlin
 PUBLISHER: Kexue Chubanshe
 DOCUMENT TYPE: Journal
 LANGUAGE: Chinese

AB Aim: To examine the effect of the spin labeled derivs. of podophyllotoxin, N-podophyllate acid-N'-[4-(2,2,6,6-tetramethyl-1-piperidinyl)oxy] thiosemicarbazide (GP4) and 4-[4-(2',2'',6'',6''-tetramethyl-1'-piperidinyl)oxy] amino]-4'-demethylepodophyllotoxin (GP7) on the cell cycle and macromol. synthesis of human lymphoid leukemia Molt 4B cells in vitro. Methods: MTT assay, 3H incorporation, and flow cytometer was used. Results: GP4, GP7, and etoposide 0.02-100 mmol.L-1 cultured for 48 h inhibited the proliferation of human lymphoid leukemia Molt 4B cells. IC50 values of GP4, GP7, and etoposide were 0.11, 4.7, and 1.6 mmol.L-1, resp. DNA and protein syntheses were obviously suppressed by GP4, GP7, and etoposide 10 mmol.L-1 for 48 h. After Molt 4B cells were treated with GP4, GP7, and etoposide 10 mmol.L-1 for 6 and 12 h, the mitotic index was increased by GP4 and reduced by GP7 and etoposide. According to flow cytometric BrdU/DNA anal., GP4 slightly retarded S phase and mainly whereas GP7 similar to etoposide induced cells accumulated at S phase and retarded the cells in G2 phase. Conclusion: GP4 and GP7 inhibit the proliferation of Molt 4B cells, but the mechanisms are different.

IT 125670-69-1, GP7
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(effects of spin labeled derivs. of podophyllotoxin on cell cycle and macromol. synthesis in human lymphoid leukemia Molt 4B cells)
 RN 125670-69-1 HCAPLUS
 CN 1-Piperidinyl, 4-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-2,2,6,6-tetramethyl- (CA INDEX NAME)

Absolute stereochemistry.



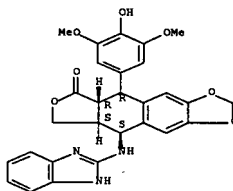
L9 ANSWER 16 OF 42 HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 1997:599664 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 127:272355
 TITLE: Comparison of antitumor activity of 4-[4-(2',2'',6'',6''-tetramethyl-1'-piperidinyl)oxy] amino]-1'-demethylepodophyllotoxin (GP-7) with its free radical reduced products
 AUTHOR(S): Zhang, Xiaowen; Jia, Zhengping; Meng, Fumin; Zhang, Peiyan; Tian, Xuan; Li, Jingxin
 CORPORATE SOURCE: Department of Pharmacology, Institute of Tumor Research, Gansu Academy of Medical Science, Lanzhou, 730050, Peop. Rep. China
 SOURCE: Zhongguo Yaolixue Tongbao (1997), 13(1), 28-30
 CODEN: ZYTOS; ISSN: 1001-1978

and tumor cell growth in tissue culture. Selected compds. were evaluated as cytotoxic agents using a clonogenic survival assay. The target compds. included 4'-O-demethyl-4β-[[4'-(benzimidazol-2''-yl)amino]- (I), 4'-O-demethyl-4β-(-)-(4''-camphanamidoanilino)-, 4-β-disubstituted-anilino-4'-demethyl-, 4-α-disubstituted-anilino-4'-demethyl-, 4-β-trisubstituted-anilino- and 4'-O-demethyl-4β-[4'-(benzimidazol-2''-yl)amino]-4-desoxypodophyllotoxin. I displayed significant growth inhibitory action against a panel of tumor cell lines including human epidermoid carcinoma of the nasopharynx (KB) and its etoposide-resistant (KB78) and vincristine-resistant (vin20c KB) subclones, lung carcinoma (A549), human ileocecal carcinoma (HCT-8), human kidney carcinoma (CAKI-1), breast adenocarcinoma (MCF-7), and human malignant melanoma (SK-MEL-2) cells. Several compds. including I were "cleavable-complex"-forming DNA topoisomerase II inhibitors with either improved or similar activity compared with the prototype drug etoposide (VP-16). I was the most active analog, being 10-fold more potent than etoposide in both cell killing and topoisomerase II inhibition in vitro assays. Using mouse models of antitumor activity, I was effective against (P388/0) leukemia but not against the growth of a (MCF-7) mammary tumor.

IT 242144-41-6P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation and biol. evaluation of aniline substituted 4'-O-demethylpodophyllotoxin antitumor agents)
 RN 242144-41-8 HCAPLUS
 CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-(1H-benzimidazol-2-ylamino)-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aS,9S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

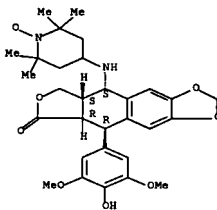
L9 ANSWER 15 OF 42 HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 1998:742970 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 130:104952
 TITLE: Effects of spin labeled derivatives of podophyllotoxin on cell cycle and macromolecular synthesis in human lymphoid leukemia Molt 4B cells
 AUTHOR(S): Wang, Jun-Zhi; Teamura, Hideaki; Shimura, Keishiro; Tian, Xuan; Ito, Hitoshi
 CORPORATE SOURCE: Department of Biochemistry, National Institute for the Control of Pharmaceutical and Biological Products, Beijing, 100050, Peop. Rep. China
 SOURCE: Zhongguo Yaoli Xuebao (1998), 19(6), 501-505
 CODEN: CYLPDN; ISSN: 0253-9756

10/576201 92/138 Robert Havlin
 PUBLISHER: Anhui Yike Daxue Linchuan Yaoli Yanjiuso
 DOCUMENT TYPE: Journal
 LANGUAGE: Chinese

AB The antitumor activity of the title compound (GP-7) and its free radical reduced products (GP-7-H, and GP-7-OH) were compared. At 5-10 mg kg-1, the inhibition rates of GP-7, GP-7-H and GP-7-OH on mouse transplanted tumor sarcoma 180(S180) were 38.7-46.8, 17.3-29.5 and 19.9-22.4%, resp. Similar results were obtained on solid carcinoma of ascitic hepatoma (Hepa). LD50 of 3 compds. were 231.2, 89.7 and 129.5 mg kg-1, resp. GP-7 had a more effective antitumor activity and a lower acute toxicity than that of GP-7-H and GP-7-OH. The results suggest that the free radical in GP-7 had an important role in increasing antitumor activity and decreasing toxicity.

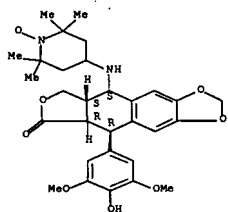
IT 125670-69-1, GP 7 125670-69-1D, derivs.
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (antitumor activity of 4-[4-(2',2'',6'',6''-tetramethyl-1'-piperidinyl)oxy] amino]-1'-demethylepodophyllotoxin (GP-7) with its free radical reduced products)
 RN 125670-69-1 HCAPLUS
 CN 1-Piperidinyl, 4-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-2,2,6,6-tetramethyl- (CA INDEX NAME)

Absolute stereochemistry.

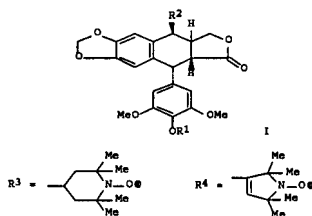


RN 125670-69-1 HCAPLUS
 CN 1-Piperidinyl, 4-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-2,2,6,6-tetramethyl- (CA INDEX NAME)

Absolute stereochemistry.



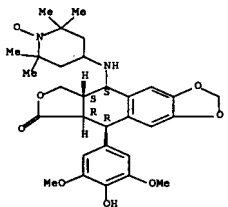
L9 ANSWER 17 OF 42 HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 1997:457449 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 127:149030
 TITLE: Syntheses and structure-activity relationship of podophyllotoxin derivatives as potential anticancer drugs
 AUTHOR(S): Wang, Yan-Guang; Tao, Lan; Pan, Jian-Lin; Shi, Jian-Feng; Chen, Yao-Zu
 CORPORATE SOURCE: Dep. Chem., Zhejiang University, Hangzhou, 310027, Peop. Rep. China
 SOURCE: Gaodeng Xuebao Huaxue Xuebao (1997), 18(7), 1061-1066
 CODEN: KTHPDM; ISSN: 0251-0790
 PUBLISHER: Gaodeng Jiaoyu Chubanshe
 DOCUMENT TYPE: Journal
 LANGUAGE: Chinese
 GI



AB Thirteen 4β-substituted podophyllotoxin deriva. I (R1 = H, Me; R2 = R3NH, R3O, R4CONH, 3,5-(NO2)2C6H3CONH, R4CO2, etc.) were prepared from podophyllotoxin or 4'-

(preparation of new spin labeled analogs of podophyllotoxin as potential antitumor agents)
 RN 125670-69-1 HCAPLUS
 CN 1-Piperidinyl-4-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-2,2,6,6-tetramethyl- (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 19 OF 42 HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 1997:225077 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 126:277327
 TITLE: Synthesis of new Spin-labeled derivatives of podophyllotoxin as potential anticancer agents
 AUTHOR(S): Pan, Jian Lin; Wang, Yan Guang; Shi, Jian; Chen, Yao Zu
 CORPORATE SOURCE: Dep. Chem., Zhejiang Univ., Hangzhou, 310027, Peop. Rep. China
 SOURCE: Chinese Chemical Letters (1997), 8(3), 207-208
 CODEN: CCLLET
 PUBLISHER: Chinese Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 GI

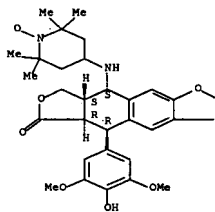
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Five new nitroxyl spin labeled podophyllotoxins e.g., I (R = Me, H) and II were synthesized via etherification of podophyllotoxin with III or via direct nucleophilic substitution with appropriate alkylamines. Two compds. were tested for their anticancer activity in vitro. The results showed that compound I (R = H) is much more potent than the clin. used etoposide (VP-16) in its inhibition of P388 cells, while compound I (R = Me) is not active.

IT 189001-22-7P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (synthesis of new nitroxyl spin-labeled deriva. of podophyllotoxin as potential anticancer agent)
 RN 189001-22-7 HCAPLUS
 CN 1-Pyrrolidinyl-3-[[[(5S,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-

demethylpodophyllotoxin and evaluated for antitumor activity against mouse leukemia P388 in vivo and human stomach carcinoma SGC-7901 in vitro. Structure activity relationship was discussed. These results demonstrate the importance of 4'-phenolic hydroxyl group, and suggest further elaboration of 4β-nitrogen-containing substitution to simplify and optimize the structure of this class of anticancer compds.
 IT 125670-69-1, GP-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (syntheses and structure-activity relationship of anticancer podophyllotoxin deriva.)
 RN 125670-69-1 HCAPLUS
 CN 1-Piperidinyl-4-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-2,2,6,6-tetramethyl- (CA INDEX NAME)

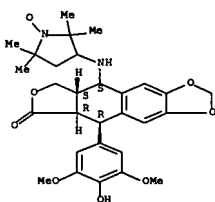
Absolute stereochemistry.



L9 ANSWER 18 OF 42 HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 1997:422746 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 127:144745
 TITLE: New spin labeled analogs of podophyllotoxin as potential antitumor agents
 AUTHOR(S): Wang, Yan-guang; Pan, Jian-lin; Shi, Jian-feng; Chen, Yao-zu
 CORPORATE SOURCE: Department Chemistry, Zhejiang University, Hangzhou, 310027, Peop. Rep. China
 SOURCE: Life Sciences (1997), 61(5), 537-542
 CODEN: LIFSAK; ISSN: 0024-3205
 PUBLISHER: Elsevier
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Four new nitroxyl labeled deriva. of podophyllotoxin, 4-(2,2,6,6-tetramethyl-1-oxyl-4-piperidinyl)oxy-epipodophyllotoxin, 4-(2,2,6,6-tetramethyl-1-oxyl-4-piperidinyl)oxy-4'-demethylepipodophyllotoxin, 4-(2,2,5,5-tetramethyl-1-oxyl-3-pyrrolinyl)formyloxy-epipodophyllotoxin and 4-(2,2,5,5-tetramethyl-1-oxyl-3-pyrrolinyl)formyloxy-4'-demethylepipodophyllotoxin, have been synthesized and evaluated for their antitumor activity in vitro. The 4'-demethyl-epipodophyllotoxins showed superior activity to the clin. used etoposide (VP-16) in their inhibition of leukemia P388, lung cancer A549 and stomach carcinoma SGC-7901 cells. The 4'-demethyl-epipodophyllotoxins was more active than the eipodophyllotoxins lacking a free phenolic hydroxyl group at C-4'.
 IT 125670-69-1
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

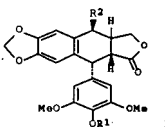
2,2,5,5-tetramethyl-, [(5S-(5a,5aβ,8aα,9β))-[partial]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 20 OF 42 HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 1997:213066 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 126:238245
 TITLE: Synthesis and antitumor activity of new derivatives of podophyllotoxin
 AUTHOR(S): Pan, Jian-Lin; Wang, Yan-Guang; Chen, Yao-Zu
 CORPORATE SOURCE: Department of Chemistry, Zhejiang University, Hangzhou, 310 027, Peop. Rep. China
 SOURCE: Current Science (1997), 72(4), 268-271
 CODEN: CUSCAM; ISSN: 0011-3891
 PUBLISHER: Current Science Association
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 GI



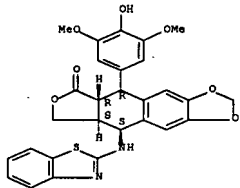
AB A series of new podophyllotoxin deriva. I [R1 = H, R2 = NHCOCH4OAc-2, 2-benzothiazolylamino; R1 = H, Me, R2 = OCH2CH4OAc-2, 2-benzothiazolylthio] were synthesized and evaluated for their antitumor activity in vitro. I [R1 = H, R2 = NHCOCH4OAc-2, 2-benzothiazolylamino] exhibited comparable or superior activity to clin.

used etoposide in their inhibition of human stomach carcinoma SGC-7901, lung cancer A 549, and mouse leukemia P388 cells.

IT 189566-25-EP
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PRP (Preparation)
 (Preparation and antitumor activity of podophyllotoxin derivs.)

RN 189566-25-8 HCAPLUS
 CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-(2-benzothiazolylamino)-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, [5R-(5a,5a β ,8a α ,9 β)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 21 OF 42 HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 1997:54908 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 126:157259
 TITLE: Study on the synthetic method of spin labeling anticancer drug GP-7
 AUTHOR(S): Yang, Weidong; Wu, Anxin
 CORPORATE SOURCE: Dep. Pharmacol., Lanzhou Med. Coll., Lanzhou, 730000, Peop. Rep. China
 SOURCE: Zhongguo Yaowu Huaxue Zazhi (1996), 6(3), 210-213
 CODEN: ZYHZEJ; ISSN: 1005-0108
 PUBLISHER: Zhongguo Yaowu Huaxue Zazhi Bianjibu
 DOCUMENT TYPE: Journal
 LANGUAGE: Chinese

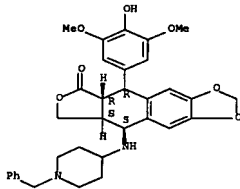
AB A new method of synthesis of intermediate product 2,2,6,6-tetramethyl-1-piperidinyl-4-amino free radical and final product GP-7 (podophyllotoxin derivative) was described, which has a mild reaction condition and good yield (32.5%).

IT 125670-69-1P, GP-7
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PRP (Preparation); USES (Uses)
 (study on synthetic method of spin labeling anticancer drug GP-7)

RN 125670-69-1 HCAPLUS
 CN 1-Piperidinyl-4-[[5,5a,8a,9R]-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-2,2,6,6-tetramethyl- (CA INDEX NAME)

Absolute stereochemistry.

Absolute stereochemistry.

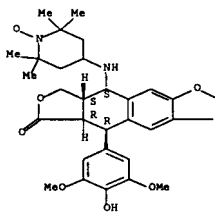


L9 ANSWER 23 OF 42 HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 1996:148283 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 124:249647
 TITLE: Antitumor Agents. 163. Three-dimensional quantitative structure-activity relationship study of 4'-O-demethylepipodophyllotoxin analogs using the CoMFA/q2-QRS approach
 AUTHOR(S): Cho, Sung Jin; Tropsha, Alexander; Suffness, Matthew; Cheng, Yung-Chi; Lee, Kuo-Hsiung
 CORPORATE SOURCE: School of Pharmacy, University of North Carolina, Chapel Hill, NC, 27599, USA
 SOURCE: Journal of Medicinal Chemistry (1996), 39(7), 1383-95
 CODEN: JMCMAR; ISSN: 0022-2623
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Analogs of 4'-O-demethylepipodophyllotoxin are considered as potential anticancer agents. The authors have applied comparative mol. field anal. (CoMFA) and a novel CoMFA/q2-QRS technique recently developed in the group to identify the essential structural requirements for increasing the ability of these compds. to form cellular protein-DNA complex. In addition, a new method to incorporate different types of probe atoms as part of q2-QRS routine has been developed. The best final model with 101 compds. using a combination of four different sets of probe atoms and charges [C (sp³, +1), C (sp², 0), H (+1), and O (sp³, -1)] yielded a q² of 0.584 and the standard error of prediction of 0.660 at 5 principal components. The steric and electrostatic contour plots of the final model were compared with the DNA phosphate backbone environment of the DNA-4'-O-demethylepipodophyllotoxin analog complex, which was generated using the x-ray structure of the DNA-nagalamycin complex. The comparison reveals that the CoMFA steric and electrostatic fields are compatible with stereochem. properties of the DNA backbone. The results obtained from this study shall guide the future synthetic efforts.

IT 127882-68-2 127882-69-3 127882-75-1
 127882-76-2 127882-77-3 127833-13-1
 152833-17-5 152886-04-9 152886-08-3
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (3-dimensional QSAR study of 4'-O-demethylepipodophyllotoxin analogs as antitumor agents using CoMFA/q2-QRS approach)

RN 127882-68-2 HCAPLUS
 CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-(1,3-benzodioxol-5-ylamino)-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)



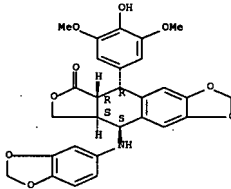
L9 ANSWER 22 OF 42 HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 1996:240728 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 124:331692
 TITLE: Activities of novel nonglycosidic epipodophyllotoxins in etoposide-sensitive and -resistant variants of human KB cells, P-388 cells, and in vivo multidrug-resistant murine leukemia cells
 AUTHOR(S): Anyanwutaku, Innocent O.; Guo, Xin; Chen, Hong-Xing; Ji, Zheng; Lee, Kuo-Hsiung; Cheng, Yung-Chi
 CORPORATE SOURCE: Department Pharmacology, Yale University School of Medicine, New Haven, CT, 06520, USA
 SOURCE: Molecular Pharmacology (1996), 49(4), 721-6
 CODEN: MOPMAJ; ISSN: 0026-895X
 PUBLISHER: Williams & Wilkins
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Previous structure-activity studies of the antitumor compound etoposide (VP-16) have suggested that replacement of the glycoside moiety could afford therapeutically active analogs with different biochem. determinants for cellular accumulation and drug resistance. In the present report, 10 analogs of VP-16 in which the glycosidyl moiety was replaced with alkyl or arylamino substituents exhibited 5-10-fold better binding affinity for topoisomerase II/DNA complex in human KB cells. A similar increase in the binding affinity was observed in an isolated-nuclei model. The analogs displayed greater or comparable potency to VP-16 in cell growth-inhibition studies and were less affected by cell membrane-associated drug resistance mechanisms, as exemplified by overexpression of P-glycoprotein multidrug-resistance gene or multidrug resistance-associated protein. Interestingly, in animal studies, analogs least affected by the membrane transport-deficiency phenotypes exhibited low therapeutic index values, thus suggesting that highly efficient modulation of cellular membrane transport defects could perturb the selectivity of antitumor agents for cancer cells. This report also suggests a new method of quantifying drug-induced protein-linked DNA breaks by graphically determining the apparent dissociation-inhibition constant (K_{di}) for the inhibitors.

IT 152833-13-1
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (antitumor activities of novel nonglycosidic epipodophyllotoxins in sensitive and resistant human and laboratory animal cells in relation to topoisomerase II/DNA complex binding and structure)

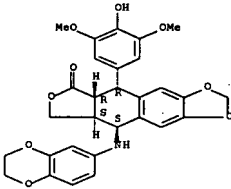
RN 152833-13-1 HCAPLUS
 CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[(1-phenylmethyl)-4-piperidinyl]amino]-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



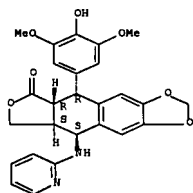
RN 127882-69-3 HCAPLUS
 CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[(2,3-dihydro-1,4-benzodioxin-6-yl)amino]-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 127882-75-1 HCAPLUS
 CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-(2-pyridinylamino)-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

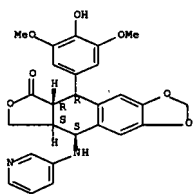
Absolute stereochemistry. Rotation (-).



RN 127882-76-2 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-(3-pyridinylamino)-, (5R,5aR,8aS,9S)-(9CI) (CA INDEX NAME)

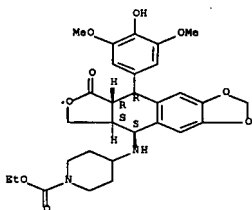
Absolute stereochemistry. Rotation (-).



RN 127882-77-3 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-(3-quinolinylamino)-, (5R,5aR,8aS,9S)-(9CI) (CA INDEX NAME)

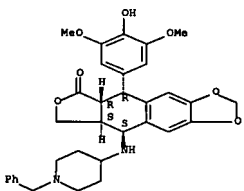
Absolute stereochemistry. Rotation (-).



RN 152886-04-9 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[[1-(phenylmethyl)-4-piperidinyl]amino]-, dihydrochloride, (5R,5aR,8aS,9S)-(9CI) (CA INDEX NAME)

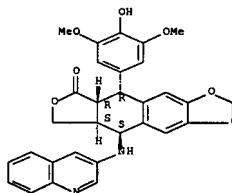
Absolute stereochemistry.



RN 152886-08-3 HCAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[5S,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-, ethyl ester, monohydrochloride, [5S-(5a,5aβ,8aα,9β)]- (9CI) (CA INDEX NAME)

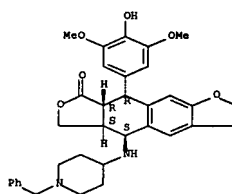
Absolute stereochemistry.



RN 152833-13-1 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[[1-(phenylmethyl)-4-piperidinyl]amino]-, (5R,5aR,8aS,9S)-(9CI) (CA INDEX NAME)

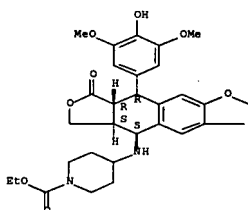
Absolute stereochemistry.



RN 152833-17-5 HCAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[5S,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 24 OF 42 HCAPLUS COPYRIGHT 2007 ACS ON STN

ACCESSION NUMBER: 1996:36218 HCAPLUS Full-text

DOCUMENT NUMBER: 124:105448

TITLE: HPLC determination of 4-[4'-(2'',2'',6'',6''-tetramethyl-1''-piperidinyl)amino]-4'-demethylepipodophyllotoxin in rat plasma and studies of its pharmacokinetics

AUTHOR(S): Jia, Z. P.; Xu, L. T.; Wang, D. M.; Xie, J. W.

CORPORATE SOURCE: Dep. Pharmacy, PLA Lanzhou General Hosp., Lanzhou, 730050, Peop. Rep. China

SOURCE: Yaouxue Xuebao (1995). 30(10), 768-72

CODEN: YHHPAL; ISSN: 0513-4870

PUBLISHER: Chinese Academy of Medical Sciences, Institute of

Materia Medica

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB 4-[4'-(2'',2'',6'',6''-tetramethyl-1''-piperidinyl)amino]-4'-demethylepipodophyllotoxin (GP-7) is a new podophyllotoxin spin-labeled derivative. Its primary effect is the antitumor activity on transplanted mouse tumors and cultured tumor cells. This paper describes a method for its determination using HPLC with UV detection and the determination of its pharmacokinetic parameters in rats. A Shimadzu LC-6A liquid chromatog. equipped with a Shimadzu SPD-6AV multiwavelength detector and a Chromatopac C-R3A data processor was used. The separation was performed on a Zorbax-ODS column (5 μ m, 4.6 mm \times 150 mm) with a mobile phase of methanol-water-glacial acetic acid (59:41:0.6). The flow-rate was 1.0 mL.min⁻¹ and detection was made at 285 nm. A plasma specimen (0.2 mL) was spiked with 22.6 μ g.mL⁻¹ internal standard (podophyllinic acid piperidinyl hydrazone nitroxide radical, GP-1) and extracted with ether-dichloromethane (3:1). The extract was evaporated at 45C. The residue was taken up with 0.1 mL of the mobile phase and 20 μ L aliquots were injected into the system. The calibration curve was linear in the range from 2 to 200 μ g.mL⁻¹ with $r = 0.9997$. The detection limit was 0.2 μ g.mL⁻¹ and the recovery of GP-7 from rat plasma was 94.3% \pm 100.9%. The relative standard deviations for within-day and between-day were 2.29% \pm 4.64% and 5.55% \pm 7.70%, resp. After i.v. injection of GP-7 10, 20 and 30 mg.kg⁻¹, the concns. of the drug in rat plasma were determined. The pharmacokinetic parameters of GP-7 were obtained by using MCKPK program on a COMPAC-486 computer. The data obtained fitted a two-compartment open model, and the mean $T_{1/2\beta}$ value was 39.8 min.

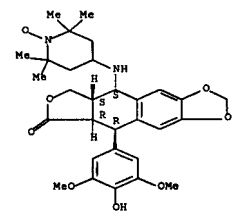
IT 125670-69-1, GP-7

RL: ANT (Analyte); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process)

(HPLC determination of 4-[4'-(2'',2'',6'',6''-tetramethyl-1''-piperidinyl)amino]-4'-demethylepipodophyllotoxin in rat plasma and studies of its pharmacokinetics)

RN 125670-69-1 HCAPLUS
 CN 1-Piperidinyl-4-[[[5,5a,8a,9R]-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-2,2,6,6-tetramethyl- (CA INDEX NAME)

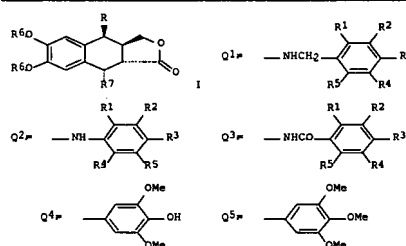
Absolute stereochemistry.



L9 ANSWER 25 OF 42 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1995:652234 HCAPLUS Full-text
 DOCUMENT NUMBER: 123:55857
 TITLE: Preparation of etoposide analogs as topoisomerase II inhibitors.
 INVENTOR(S): Lee, Kuo-Hsiung; Zhou, Xiao-Ming; Wang, Zhe-Qing; Chang, Ya-Ching; Chen, Hong-Xing; Cheng, Yung-Chi; Shen, Ya-Ching; Han, Pu-Shen; Hu, Hong; Zhang, Yi-Lin
 PATENT ASSIGNER(S): University of North Carolina, USA
 SOURCE: U.S., 22 pp. Cont.-in-part of U.S. 5,132,322.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 4
 PATENT INFORMATION:

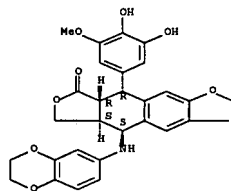
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5332811	A	19940726	US 1991-693300	19910501
US 5132322	A	19920721	US 1989-406330	19890912
CA 2044211	A1	19921211	CA 1991-2044211	19910610
PRIORITY APPLN. INFO.:			US 1989-406330	A2 19890912
			US 1989-313826	B2 19890223

OTHER SOURCE(S): MARPAT 123:55857
 GI



AB Title compds. [I; R = Q1-Q3; R1-R5 = H, Me, Et, n-Pr, i-Pr, Bu, CP3, OMe, OBt, OPr, OBU, OPr-i, OBU-i, OCH2O, OCH2CH2O, CH2 OH, CH2CH2OH, CH2Cl, CH2CH2Cl, CH2F, CH2CH2F, CH2OMe, Ac, COEt, CO2Me, CO2Et, NO2, NH2, NH2.HCl, NH2.HAc, NH2.HAc, NH2.1/2H2SO4, NH2.1/3H3PO4, NMe2, NEt2, OH, CN, N3, SO2H, SO2NH2, SO2Cl, (substituted) Ph, PhO, aniliny, cyclohexyl, piperidinyl, morpholinyl, piperazinyl, N-methylpiperazinyl; R6 = H, Me, Et, Pr, Pr-i, Bu, bridged methylene; R7 = Q4, Q5, etc.], were prepared Thus, 4'-O-demethyl-4β-azido-4-deoxypodophyllotoxin. This was hydrogenated in EtOAc over Pd/C to give 70% 4'-O-demethyl-4β- amino-4-deoxypodophyllotoxin. Treatment of the product with PhCH2Br and NaI in acetone gave 4'-O-demethyl-4β-benzylamino-4-deoxypodophyllotoxin. The latter inhibited DNA topoisomerase II with ID50 = 25 μM.
 IT 147199-62-CP
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) [preparation of, as topoisomerase II inhibitor]
 RN 147199-62-0 HCAPLUS
 CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[(2,3-dihydro-1,4-benzodioxin-6-yl)amino]-5-(3,4-dihydroxy-5-methoxyphenyl)-5,8,8a,9-tetrahydro-, (5R,5aR,8aR,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

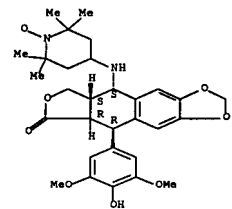


L9 ANSWER 26 OF 42 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1995:569862 HCAPLUS Full-text
 DOCUMENT NUMBER: 122:305829
 TITLE: Pharmacokinetics of 4-[[[4'-(2'',2'',6'',6''-tetramethyl-1''-piperidinyl-4'-demethylepipodophyllotoxin in mice bearing sarcoma 180
 AUTHOR(S): Jia, Zheng-Ping; Xie, Jing-Wen; Xie, Ting-Guan
 CORPORATE SOURCE: Dep. of Pharmacy, Lanzhou General Hospital, Lanzhou, 730050, Peop. Rep. China
 SOURCE: Zhongguo Yaoli Xuebao (1995), 16(3), 197-200
 PUBLISHER: Kexue
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB The pharmacokinetics of 4-[[[4'-(2'',2'',6'',6''-tetramethyl-1''-piperidinyl-4'-demethylepipodophyllotoxin (GP-7) was studied in mice bearing sarcoma 180. The plasma concentration-time course of GP-7 in mice was best fitted to a 2-compartment open model after i.v. 20, 60 mg/kg. At both doses the plasma T 1/2β was around 40 min. The highest concentration was found in liver and lung. The level of GP-7 was higher in tumor than in kidney, spleen, and bone marrow after i.p. 30 mg/kg for 10 d. Urinary excretion of GP-7 as unchanged drug accounted for about 20% of the administered doses 72 h after injection. GP-7 disappeared more slowly from the plasma of mice bearing sarcoma 180, distributed extensively over the tissues and was partially excreted from urine. The concentration of GP-7 in tumor was higher.
 IT 125670-69-1, GP-7
 RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (pharmacokinetics of [(tetramethylpiperidinyl-4'-amino)demethylepipodophyllotoxin in mice bearing sarcoma 180])

RN 125670-69-1 HCAPLUS
 CN 1-Piperidinyl-4-[[[5,5a,8a,9R]-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-2,2,6,6-tetramethyl- (CA INDEX NAME)

Absolute stereochemistry.

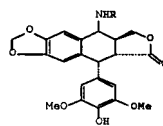


L9 ANSWER 27 OF 42 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1994:426886 HCAPLUS Full-text
 DOCUMENT NUMBER: 121:26886
 TITLE: 4β-amino podophyllotoxin analog compounds for treating tumors and methods of synthesis and use
 INVENTOR(S): Lee, Kuo Hsiung; Cheng, Yung Chi; Zhang, Yi Lin

PATENT ASSIGNER(S): University of North Carolina at Chapel Hill, USA; Yale University
 SOURCE: U.S., 24 pp. Cont.-in-part of U.S. Ser. No. 874,345.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 4
 PATENT INFORMATION:

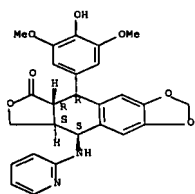
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5300500	A	19940405	US 1992-987765	19921208
US 5132322	A	19920721	US 1989-406330	19890912
WO 9322319	A1	19931111	WO 1993-US830	19930423
W: AT, AU, BB, BG, BR, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KR, KR, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IR, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CO, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9341136	A	19931129	AU 1993-41136	19930423
US 5541223	A	19960730	US 1993-145382	19931028
PRIORITY APPLN. INFO.:			US 1989-313826	B1 19890223
			US 1989-406330	A1 19890912
			US 1992-874345	A2 19920424
			US 1992-944472	A 19920914
			US 1992-987765	A2 19921208
			WO 1993-US830	A 19930423

OTHER SOURCE(S): MARPAT 121:26886
 GI



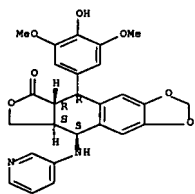
AB Podophyllotoxin compds. I (R = 1-piperidinylethylamino, 4-morpholinylethylamino, etc.) and their use in treating tumors are disclosed. I (R = (CH2)3N(Me)2], prepared from 4'-O-demethyl-4β-bromo-4-deoxypodophyllotoxin, inhibited human DNA topoisomerase II (from peripheral blast cells of a patient with acute leukemia) and promoted cellular protein-DNA complex formation.
 IT 127882-75-1P 127882-76-2P 127882-77-3P
 152886-04-9P 155157-47-4P
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of and DNA topoisomerase II activity inhibition by and cellular protein-DNA complex formation promotion by)
 RN 127882-75-1 HCAPLUS
 CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-(2-pyridinylamino)-, (5R,5aR,8aR,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



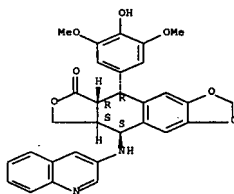
RN 127882-76-2 HCAPLUS
CN Puro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-(3-pyridinylamino)-, (5R,5aR,8aS,9S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



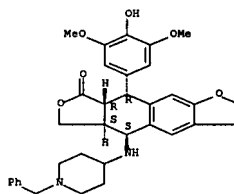
RN 127882-77-3 HCAPLUS
CN Puro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-(3-quinolinylamino)-, (5R,5aR,8aS,9S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 152886-04-9 HCAPLUS
CN Puro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[[1-(phenylmethyl)-4-piperidinyl]amino]-, dihydrochloride, (5R,5aR,8aS,9S)-(9CI) (CA INDEX NAME)

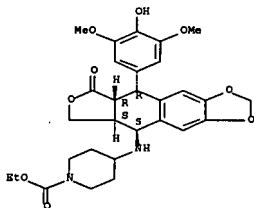
Absolute stereochemistry.



● 2 HCl

RN 155157-47-4 HCAPLUS
CN 1-Piperidinecarboxylic acid, 4-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-, ethyl ester, dihydrochloride (9CI) (CA INDEX NAME)

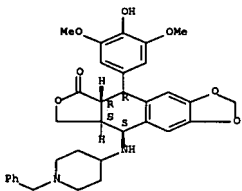
Absolute stereochemistry.



● 2 HCl

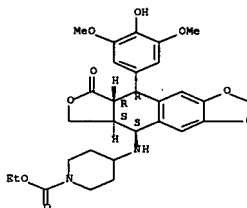
IT 152833-13-1P 152833-17-5P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of, as neoplasia inhibitor)
RN 152833-13-1 HCAPLUS
CN Puro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[[1-(phenylmethyl)-4-piperidinyl]amino]-, (5R,5aR,8aS,9S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 152833-17-5 HCAPLUS
CN 1-Piperidinecarboxylic acid, 4-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-, ethyl ester (9CI) (CA INDEX NAME)

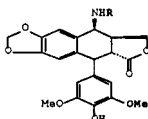
Absolute stereochemistry.



L9 ANSWER 28 OF 42 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1994:323095 HCAPLUS Full-text
DOCUMENT NUMBER: 120:323095
TITLE: Preparation of 4-β-aminopodophyllotoxin derivatives as antitumor agents
INVENTOR(S): Lee, Kuo Haiung; Cheng, Yung Chi
PATENT ASSIGNEE(S): University of North Carolina, USA
SOURCE: PCT Int. Appl., 59 pp.
CODEN: FIKX22
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9322319	A1	19931111	WO 1993-US2830	19930423
W:	AT, AU, BB, BG, BR, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KR, KR, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US			
RW:	AT, BR, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CP, CG, CI, CM, GA, GN, ML, MR, NR, SN, TD, TO			
US 5300500	A	19940405	US 1992-987765	19921208
AU 9341136	A	19931129	AU 1993-41136	19930423
PRIORITY APPL. INFO.:				
			US 1992-874345	A 19920424
			US 1992-944472	A 19920914
			US 1992-987765	A2 19921208
			US 1989-313826	B1 19890223
			US 1989-406330	A1 19890912
			WO 1993-US2830	A 19930423

OTHER SOURCE(S): MARPAT 120:323095
GI

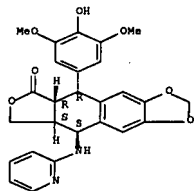


AB Title compds. I [R = R₂R₁N(CH₂)_n wherein R₁, R₂ = H, alkyl, pyrrolidyl, piperidyl, morpholino, 2-oxopyrrolidyl, etc., n = 2-4], are prepared 4'-O-demethylpiperodophyllotoxin was brominated to give the 4β-bromo derivative to which was added 4-benzyl-1-piperidinamine to give I (R = 4-benzylpiperidinol) (II). In a cytotoxicity test with KB strains the ID₅₀ of II was <0.4 μM.

IT 127682-75-1P 127682-76-2P 127682-77-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

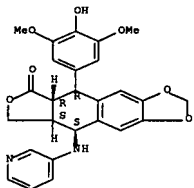
RN 127682-75-1 HCAPLUS
CN Puro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-(2-pyridinylamino)-, (5R,5aR,8aS,9S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

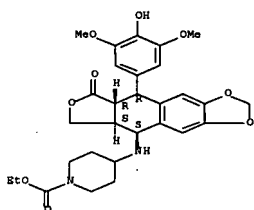


RN 127682-76-2 HCAPLUS
CN Puro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-(3-pyridinylamino)-, (5R,5aR,8aS,9S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

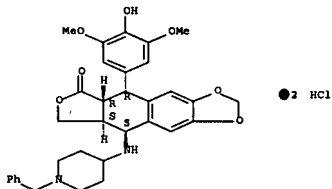


RN 127682-77-3 HCAPLUS



RN 152886-04-9 HCAPLUS
CN Puro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[[1-(phenylmethyl)-4-piperidinyl]amino]-, dihydrochloride, (5R,5aR,8aS,9S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

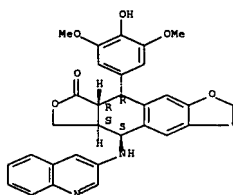


RN 155157-47-4 HCAPLUS
CN 1-Piperidinecarboxylic acid, 4-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-6-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-, ethyl ester, dihydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

CN Puro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-(3-quinolinylamino)-, (5R,5aR,8aS,9S)-(9CI) (CA INDEX NAME)

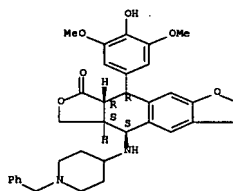
Absolute stereochemistry. Rotation (-).



IT 152833-13-1P 152833-17-5P 152886-04-9P
155157-47-4P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of, as antitumor agent)

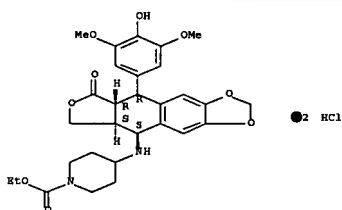
RN 152833-13-1 HCAPLUS
CN Puro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[[1-(phenylmethyl)-4-piperidinyl]amino]-, (5R,5aR,8aS,9S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

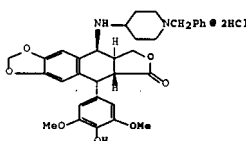


RN 152833-17-5 HCAPLUS
CN 1-Piperidinecarboxylic acid, 4-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-6-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 29 OF 42 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1994:124146 HCAPLUS Full-text
DOCUMENT NUMBER: 120:124146
TITLE: Antitumor Agents. 148. Synthesis and Biological Evaluation of Novel 4β-Amino Derivatives of Etoposide with Better Pharmacological Profiles
AUTHOR(S): Zhang, Yi Lin; Guo, Xin; Cheng, Yung Chi; Lee, Kuo Weiung
CORPORATE SOURCE: Natural Products Laboratory, University of North Carolina, Chapel Hill, NC, 27599, USA
SOURCE: Journal of Medicinal Chemistry (1994), 37(4), 446-52
CODEN: JMCNAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

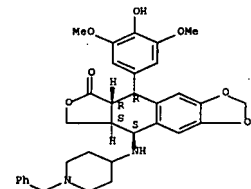


II

AB A series of novel 4β-amino derivs. of etoposide (I), which can form water-soluble salts and demonstrate excellent activity against mdr- and topo II-resistant cell lines, have been synthesized. Compared with etoposide, a number of the compds. show comparable or greater inhibition of human DNA topo II. In a cellular protein-DNA complex formation assay, a number of the compds. are more potent than I. A dose-response study of II shows that it is 20 times more active in formation of protein-linked DNA breaks than I. Furthermore, both II and its free base were found to be highly active toward I-resistant KB cell lines. All compds. were also evaluated in vitro against a total of 56 human tumor cell lines derived from seven cancer types. Comparison of the log₁₀ GI₅₀ mean graph

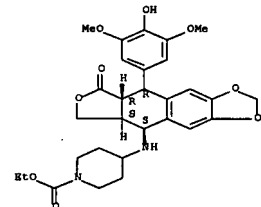
midpoints of the comps. (-4.89 to -7.30) with that of 1 (-4.08) shows these new analogs to be 6-1659-fold more active than 1.
 152833-13-1P 152833-17-5P 152886-04-9P
 152886-08-3P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PRSP (Preparation); USSS (Uses)
 (preparation and antitumor activity of)
 RN 152833-13-1 HCAPLUS
 CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[[1-(phenylmethyl)-4-piperidinyl]amino]-, (5R,5aR,8aS,9S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 152833-17-5 HCAPLUS
 CN 1-Piperidinecarboxylic acid, 4-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

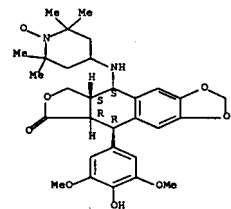


RN 152886-04-9 HCAPLUS
 CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[[1-(phenylmethyl)-4-piperidinyl]amino]-, dihydrochloride, (5R,5aR,8aS,9S) - (9CI) (CA INDEX NAME)

no measurable optical or elec. cross talk due to a high resistivity thermostat polymer buffers layer employed. Fabrication and performance of the device is discussed.
 IT 125670-69-1, GP7
 RL: USES (Uses)
 (electrooptical Mach-Zehnder intensity modulator using)

RN 125670-69-1 HCAPLUS
 CN 1-Piperidinyl-4-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-2,2,6,6-tetramethyl- (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 31 OF 42 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1993:440510 HCAPLUS Full-text
 DOCUMENT NUMBER: 119:40510

TITLE: Effects of 4-[[[(2'',2'',6'',6''-tetramethyl-1''-piperidinyl)oxy]amino]-4''-demethylepipodophyllotoxin on immune function in mice

AUTHOR(S): Jia, Zhengping; Xie, Jingwen; Feng, Pu; Niu, Jiguo
 CORPORATE SOURCE: Dep. Pharm., PLA Lanzhou Gen. Hosp., Lanzhou, 730050, Peop. Rep. China
 SOURCE: Zhongguo Yaoli Xuebao (1993), 14(3), 221-4
 CODEN: CYLPDN; ISSN: 0253-9756

DOCUMENT TYPE: Journal

LANGUAGE: English

AB 4-[[[(2'',2'',6'',6''-Tetramethyl-1''-piperidinyl)oxy]amino]-4''-demethylepipodophyllotoxin (GP-7) 10-40 mg · kg⁻¹ i.p. daily for 7 days reduced the specific antibody formation of splenocytes, serum agglutinin titer, and hemolysin HC50 in mice immunized with SRBC. GP-7 inhibited the footpad delayed hypersensitivity reaction and decreased the wts. of spleen and thymus, but did not affect the phagocytic function of the peritoneal macrophages. In vitro the proliferation of mouse splenic lymphocytes activated by Con A was markedly inhibited by GP-7 in a concentration-dependent manner. At concns. of 0.05-5 mg · L⁻¹, the inhibition rates were 24-96%. These results suggested that GP-7 was an immunosuppressive agent.

IT 125670-69-1, GP 7

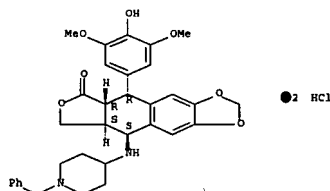
RL: PROC (Process)
 (immunosuppressive action of)

RN 125670-69-1 HCAPLUS

CN 1-Piperidinyl-4-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-2,2,6,6-tetramethyl- (CA INDEX NAME)

Absolute stereochemistry.

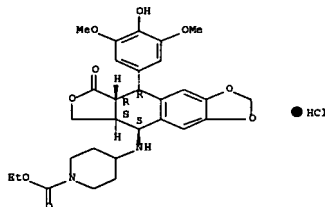
Absolute stereochemistry.



RN 152886-08-3 HCAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[(5S,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-, ethyl ester, monohydrochloride, [(5S-(5a,5aβ,8aα,9β))- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 30 OF 42 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1993:459328 HCAPLUS Full-text

DOCUMENT NUMBER: 119:59328

TITLE: Multilevel registered polymeric Mach-Zehnder intensity modulator array

AUTHOR(S): Tumolillo, Thomas A., Jr.; Ashley, Paul R.

CORPORATE SOURCE: Res. Dev. Eng. Cent., Natl. Res. Council. Res. Assoc., AL, 35898-5248, USA

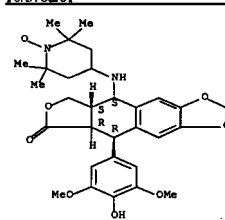
SOURCE: Applied Physics Letters (1993), 62(24), 3068-70

CODEN: APPLAB; ISSN: 0003-6951

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The first known demonstration is described of a registered two level guided wave polymeric electrooptic Mach-Zehnder intensity modulator array. The device consists of two complete vertically stacked levels. Both levels were independently poled and operated. There was



L9 ANSWER 32 OF 42 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1993:204718 HCAPLUS Full-text

DOCUMENT NUMBER: 118:204718

TITLE: Antitumor agents 126. Novel 4β-substituted anilino derivatives of 3',4'-O-didemethylpodophyllotoxin as potent inhibitors of human DNA topoisomerase II

AUTHOR(S): Wang, Zhe Qing; Shen, Ya Ching; Chen, Hong Xing; Chang, Jang Yang; Guo, Xin; Cheng, Yung Chi; Lee, Kuo Heiung

CORPORATE SOURCE: Sch. Pharm., Univ. North Carolina, Chapel Hill, NC, 27599, USA

SOURCE: Pharmaceutical Research (1993), 10(3), 343-50

CODEN: PHREES; ISSN: 0724-8741

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A series of derive. of 3',4'-O-didemethylpodophyllotoxin were synthesized and evaluated for their inhibitor activity against neoplastic cell growth (KB) and against human DNA topoisomerase II as well as for their activity in causing cellular protein-linked DNA breakage. The compds. possessing a 4β-anilino moiety either unsubstituted or substituted at the para (P, CO₂Me, COMe, CN, CH₂CN, NO₂) or meta (OH) positions or with an ethylenedioxy moiety showed the same or greater activity than topoisomerase II. However, compared to the corresponding 4'-O-demethyl analogs, the 3',4'-O-didemethyl compds. have a similar potency in inhibition of DNA topoisomerase II but are less active in causing cellular protein-linked DNA breakage. Complete correlation between the 3 biol. activities - cytotoxicity, inhibition of DNA topoisomerase II, and induction of protein-linked DNA breakage - was also not observed. This supports the possibility that the biol. determinants of action among these compds. may be different.

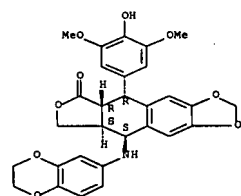
IT 127882-69-3

RL: BIOL (Biological study)
 (antitumor activity and DNA topoisomerase II inhibitory activity of, structure in relation to)

RN 127882-69-3 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[(2,3-dihydro-1,4-benzodioxin-6-yl)amino]-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aS,9S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



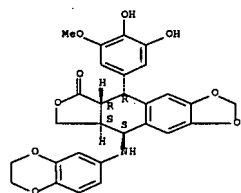
IT 147199-62-OP

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and antitumor activity and DNA topoisomerase II inhibitory activity of structure in relation to)

RN 147199-62-0 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[(2,3-dihydro-1,4-benzodioxin-6-yl)amino]-5-(3,4-dihydroxy-5-methoxyphenyl)-5,8,8a,9-tetrahydro-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L9 ANSWER 33 OF 42 HCAPLUS COPYRIGHT 2007 ACS ON STN

ACCESSION NUMBER: 1992:523995 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 117:123995

TITLE: Circular dichroism of spin-labeled derivatives of podophyllotoxin

AUTHOR(S): Tian, Xuan; Li, Jingxin; Chen, Yaouzu

CORPORATE SOURCE: Natl. Lab. Appl. Org. Chem., Lanzhou Univ., Lanzhou, 730000, Peop. Rep. China

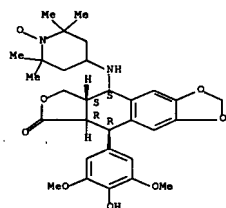
SOURCE: Gaodeng Xuexiao Huaxue Xuebao (1992), 13(3), 349-51
CODEN: KTHPDM; ISSN: 0251-0790

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB The CD spectra of 10 spin-labeled derivs. of podophyllotoxin were studied with CD rule of 1-aryl tetralin compds. and Sneath's sphere rule. The relationship between the first couple and stereoconfiguration and antitumor activity of these compds. were discussed.

IT 125670-69-1



L9 ANSWER 35 OF 42 HCAPLUS COPYRIGHT 2007 ACS ON STN

ACCESSION NUMBER: 1992:128476 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 116:128476

TITLE: Antitumor agents. 123. Synthesis and human DNA topoisomerase II inhibitory activity of 2'-chloro derivatives of etoposide and 4β-(arylamino)-4'-O-demethylpodophyllotoxins

AUTHOR(S): Hu, Hong; Liu, Su Ying; Cheng, Yung Chi; Lee, Kuo

Hsiung; Wang, Zhe Qing
Sch. Pharm., Univ. North Carolina, Chapel Hill, NC, 27599, USA

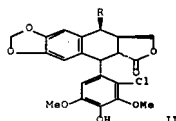
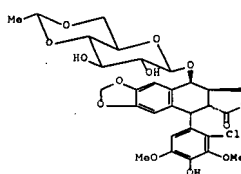
SOURCE: Journal of Medicinal Chemistry (1992), 35(5), 866-71
CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 116:128476

OI



AB The title compds. I and II (e.g. R = OH, R = NH₂CH₂CH₂; R₁ = 3-, 4-NO₂, 3-OH, 4-F, 4-Cl, 4-Br) were prepared and evaluated for their inhibitory activity against the human DNA topoisomerase II as well as for their activity in causing cellular protein-linked DNA breakage. The results showed that none of these compds. are active as a result of the C-

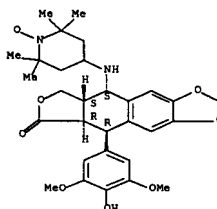
RL: BIOL (Biological study)

(CD of spin-labeled, antitumor activity and structure relationship of)

RN 125670-69-1 HCAPLUS

CN 1-Piperidinyl-4-[[[(5S,5aR,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl)amino]-2,2,6,6-tetramethyl- (CA INDEX NAME)]

Absolute stereochemistry.



L9 ANSWER 34 OF 42 HCAPLUS COPYRIGHT 2007 ACS ON STN

ACCESSION NUMBER: 1992:400467 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 117:467

TITLE: Effects of 4-(4'-[(2'',2'',6'',6'')-tetramethyl-1''-piperidinyl]oxy)amino)-4'-demethylpodophyllotoxin on nucleic acids, proteins, and DNA strand of L7712 cells in vitro

AUTHOR(S): He, Xiaoqing; Zhang, Peiyan; Tian, Xuan; Li, Jinxin

CORPORATE SOURCE: Dep. Pharmacol., Lanzhou Med. Coll., Lanzhou, 730000, Peop. Rep. China

SOURCE: Zhongguo Yaoji Xuebao (1992), 13(3), 276-9
CODEN: CYLPDM; ISSN: 0253-9756

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB The antitumor activity of GP-7, a new spin-labeled epipodophyllotoxin, was studied by liquid scintillation spectrometry. There were many similarities between GP-7 and etoposide. Both GP-7 and etoposide inhibited the incorporation of [3H]thymidine, [3H]uridine, and [3H]leucine into DNA, RNA, and protein synthesis in leukemia 7712 cells. The inhibition correlated with drug concentration and time. IC₅₀ of GP-7 and etoposide on DNA synthesis at 24 h were 0.21 and 0.37 μg·mL⁻¹, resp. The inhibition of GP-7 or etoposide on DNA synthesis retained even after the drug were washed out for 3 h. GP-7 and etoposide caused DNA single-strand breaks, with a well concentration-response relationship. These data suggest that the inhibition of DNA synthesis by GP-7 or etoposide is likely due to the damage of DNA template and breaking of single-strand DNA.

IT 125670-69-1, GP 7

RL: BIOL (Biological study)
(DNA and RNA and protein formation inhibition by, DNA strand break induction in, in leukemia cells)

RN 125670-69-1 HCAPLUS

CN 1-Piperidinyl-4-[[[(5S,5aR,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl)amino]-2,2,6,6-tetramethyl- (CA INDEX NAME)]

Absolute stereochemistry.

2'-chloro substitution on ring E. This would suggest that the free rotation of ring E is essential for the aforementioned enzyme inhibitory activity. In addition, these 2'-chloro derivs. showed no significant cytotoxicity.

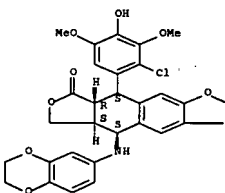
IT 138261-36-6P 138261-37-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and DNA topoisomerase inhibitory activity of)

RN 138261-36-6 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[(2,3-dihydro-1,4-benzodioxin-6-yl)amino]-5-(2-chloro-4-hydroxy-3,5-dimethoxyphenyl)-5,8,8a,9-tetrahydro-, [(5S-(5aR,8aR,9R))- (9CI) (CA INDEX NAME)]

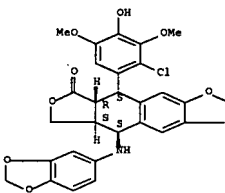
Absolute stereochemistry.



RN 138261-37-7 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-(1,3-benzodioxol-5-ylamino)-5-(2-chloro-4-hydroxy-3,5-dimethoxyphenyl)-5,8,8a,9-tetrahydro-, [(5S-(5aR,8aR,9R))- (9CI) (CA INDEX NAME)]

Absolute stereochemistry.



L9 ANSWER 36 OF 42 HCAPLUS COPYRIGHT 2007 ACS ON STN

ACCESSION NUMBER: 1991:421725 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 115:21725

TITLE: Effect of 4β-arylamino derivatives of 4'-O-demethylpodophyllotoxin on human DNA

AUTHOR(S):

topoisomerase II, tubulin polymerization, KB cells, and their resistant variants
Chang, Jang Yang; Han, Fu Sheng; Liu, Su Ying; Wang, Zhe Qing; Lee, Kuo Hsiung; Cheng, Yung Chi
Sch. Med., Yale Univ., New Haven, CT. 06510, USA
Cancer Research (1991), 51(7), 1755-9
CODEN: CNRSEA; ISSN: 0008-5472

CORPORATE SOURCE:

SOURCE: CODEN: CNRSEA; ISSN: 0008-5472

DOCUMENT TYPE:

Journal
English

AB Six 4β-arylamino deriva. of 4'-O-demethylepipodophyllotoxin were examined for inhibitory activity against human DNA topoisomerase II and tubulin polymerization, their ability to generate protein-linked DNA breaks in cells, and their cytotoxicity toward the KB cell line and its VP-16- and vincristine-resistant variants. Five of these deriva. were 5-10-fold more potent than VP-16 as inhibitors of DNA topoisomerase II in vitro, and all of these deriva. could generate the same amount or more protein-linked DNA breaks in cells than VP-16 at 1-20 μM. Tubulin polymerization was inhibited by these compds. to different degrees. The analogs were cytotoxic not only to KB cells but also for their VP-16-resistant and vincristine-resistant variants which showed decrease cellular uptake of VP-16 and a decrease in DNA topoisomerase II content or overexpression of MDR1 phenotype. These characteristics may cause these deriva. to have different spectrums of antitumor activity.

IT 127882-69-3

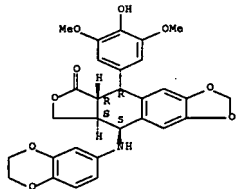
RL: BIOL (Biological study)

(DNA topoisomerase II and tubulin polymerization inhibition by, antitumor activity in relation to)

RN 127882-69-3 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[(2,3-dihydro-1,4-benzodioxin-6-yl)amino]-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 37 OF 42 HCAPLUS COPYRIGHT 2007 ACS ON STN

ACCESSION NUMBER: 1991:178003 HCAPLUS Full-text

DOCUMENT NUMBER: 114:178003

TITLE: Effects of 4-[(4'-(2'',2'',6'',6''-tetramethyl-1''-piperidinyl)oxy)amino]-4'-demethylepipodophyllotoxin on the proliferation, clonal formation and DNA synthesis of L1210 cells in vitro

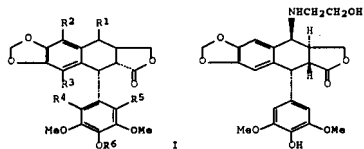
Jia, Zhengping; Zhang, Peiyan; Liang, Zhongdong
Dep. Clin. Pharmacol., Gen. Hosp., Lanzhou, 730050, Peop. Rep. China

SOURCE: Zhongguo Yaolixue Yu Dulixue Zazhi (1991), 5(1), 47-9
CODEN: ZYXZEW; ISSN: 1000-3002

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9009788	A1	19900907	WO 1990-US842	19900223
W: AU, CA, JP, KR				
RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
US 5132322	A	19920721	US 1989-406330	19890912
AU 9051571	A	19900926	AU 1990-51571	19900223
AU 632796	B2	19930114		
EP 461141	A1	19911218	EP 1990-903699	19900223
EP 461141	B1	19911103		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
AT 186302	T	19931115	AT 1990-903699	19900223
JP 3043802	B2	20000522	JP 1990-503787	19900223
PRIORITY APPLN. INFO.:			US 1989-313826	A 19890223
			US 1989-406330	A 19890912
			WO 1990-US842	A 19900223

OTHER SOURCE(S): MARPAT 114:121866

GI



AB Title compds., etoposide analogs in which the glycosidic moiety is replaced, I (R1 = β-HOCH2CH2O, β-HOCH2CHMeNH, β-HOCH2CHMeNH, β-Cl, α- or β-HO, α- or β-H2N, β-HOCH2CH2NH, etc.; R1 = β-2-HO-, β-3-HO-, β-4-HOCH2CHMeNH, R2-R5 = H, Br; R6 = H, Me) are prepared HBr was bubbled through a solution of podophyllotoxin in anhydrous CH2Cl2 at room temperature to give a product which was treated with BaCO3 and HOCH2CH2NH2 to give after 5 h at room temperature podophyllotoxin derivative II. In test for antitumor activity such as inhibitory activity on human type II DNA topoisomerase, formation of protein-linked DNA breakage, and cytotoxicity II and other I exceeded that of etoposide.

IT 127882-68-2P 127882-75-1P 127882-76-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of, as antitumor agent)

RN 127882-68-2 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-(1,3-benzodioxol-5-ylamino)-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB The effects of a new podophyllotoxin spin-labeled derivative, 4-[(4'-(2'',2'',6'',6''-tetramethyl-1''-piperidinyl)oxy)amino]-4'-demethylepipodophyllotoxin (GP-7) on the proliferation, clonal formation and incorporation of [3H]TdR into DNA of L1210 cells in vitro were compared with those of VP-16. The proliferation of L1210 cells was markedly inhibited by GP-7 and the inhibition rate had a pos. correlation with the concentration and exposure time. At a concentration of 0.08-100 μmol/L, the inhibition rate was 18.4-80.7% and the IC50 was 1.51 μmol/L. After exposure of the cells to GP-7 μmol/L for 6, 12, 24 and 48 h, the inhibition rates were 21.7, 42.2, 60.6 and 81.2%, resp. The effect of GP-7 on the proliferation of L1210 cells was similar to that of VP-16. The clonal formation of L1210 cells was inhibited by GP-7 and VP-16 with IC50 values of 3.29 and 3.82 μmol/L, resp. After exposure to 0.08-100 μmol/L GP-7 for 24 h, the inhibition rate of the incorporation of [3H]TdR into DNA of L1210 cells was 21.4-81.2%. These results suggested that GP-7 had a similar remarkable antitumor activity as that of VP-16.

IT 125670-69-1, GP 7

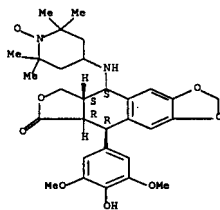
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USKS (Uses)

(antitumor activity of, as podophyllotoxin derivative)

RN 125670-69-1 HCAPLUS

CN 1-Piperidinyl-4-[[[(5S,5aS,8aR,9R)-5,5a,6,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl)amino]-2,2,6,6-tetramethyl- (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 38 OF 42 HCAPLUS COPYRIGHT 2007 ACS ON STN

ACCESSION NUMBER: 1991:121866 HCAPLUS Full-text

DOCUMENT NUMBER: 114:121866

TITLE: Preparation of 4-deoxypodophyllotoxins as antitumor agents

Lee, Kuo Hsiung; Wang, Zhe Qing; Cheng, Yung Chi; Liu, Su Ying; Imakura, Yasuhiro; Haruna, Mitsumasa; Beers, Scott A.; Thurston, Lee S.; Dai, Hua Juan; et al.

PATENT ASSIGNEE(S): University of North Carolina, USA

SOURCE: BCT Int. Appl., 69 pp.

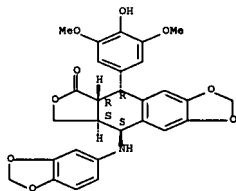
CODEN: PIXX22

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

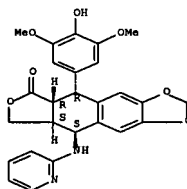
PATENT INFORMATION:



RN 127882-75-1 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-(2-pyridinylamino)-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

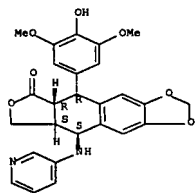
Absolute stereochemistry. Rotation (-).



RN 127882-76-2 HCAPLUS

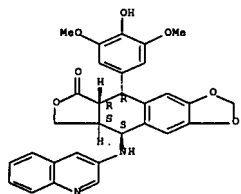
CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-(3-pyridinylamino)-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 127882-77-3 HCAPLUS
CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-(3-quinolinylamino)-, (5R,5aR,8aS,9S)-(9CI) (CA INDEX NAME)

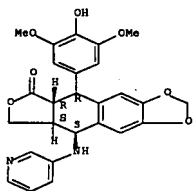
Absolute stereochemistry. Rotation (-).



IT 127882-68-2 127882-75-1 127882-76-2
127882-77-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in preparation of antitumor agents)

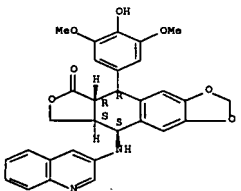
RN 127882-68-2 HCAPLUS
CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-(1,3-benzodioxol-5-ylamino)-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aS,9S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



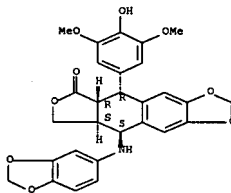
RN 127882-77-3 HCAPLUS
CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-(3-quinolinylamino)-, (5R,5aR,8aS,9S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



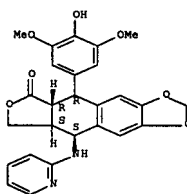
L9 ANSWER 39 OF 42 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1991:23646 HCAPLUS Full-text
DOCUMENT NUMBER: 114:23646
TITLE: Study on anticancer drugs - new spin-labeled derivatives of podophyllotoxin
AUTHOR(S): Chen, Yaoru; Wang, Yanguang; Li, Jingxin; Tian, Xuan; Chen, Ping
CORPORATE SOURCE: Dep. Chem., Lanzhou Univ., Lanzhou, 730000, Peop. Rep. China
SOURCE: Chinese Science Bulletin (1990), 35(2), 99-102
CODEN: CSBUEP; ISSN: 1001-6538
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

* STRUCTURE DIAORAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *



RN 127882-75-1 HCAPLUS
CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-(2-pyridinylamino)-, (5R,5aR,8aS,9S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 127882-76-2 HCAPLUS
CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-(3-pyridinylamino)-, (5R,5aR,8aS,9S)-(9CI) (CA INDEX NAME)

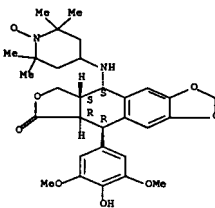
Absolute stereochemistry. Rotation (-).

AB The title compds. I (R = β -H, R1 = H, OH; R = α -H, R1 = OH) and II were prepared I (R = β -H, R1 = OH) and II show significant antitumor activity.

IT 125670-69-1P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and antitumor activity of)

RN 125670-69-1 HCAPLUS
CN 1-Piperidinyl-4-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-2,2,6,6-tetramethyl- (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 40 OF 42 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1991:17231 HCAPLUS Full-text
DOCUMENT NUMBER: 114:17231
TITLE: Antitumor activity of 4-(4'-(2'',2'',6'',6''-tetramethyl-1''-piperidinyl)amino)-4'-demethyl epipodophyllotoxin in vitro
AUTHOR(S): Jia, Zhengping; Zhang, Peiyuan; Liang, Zhongdong; Wang, Yanguang; Chen, Yaoru; Li, Jinxin; Tian, Xuan
CORPORATE SOURCE: Dep: Pharmacol., Lanzhou Med. Coll., Lanzhou, 730000, Peop. Rep. China
SOURCE: Zhongguo Yaoli Xuebao (1990), 11(6), 549-53
CODEN: CYLPDN; ISSN: 0253-9756
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB The antitumor activity of a new podophyllotoxin spin-labeled derivative, 4-(4'-(2'',2'',6'',6''-tetramethyl-1''-piperidinyl)amino)-4'-demethyl epipodophyllotoxin (GP-7) was studied in vitro. The proliferation of SGC-7901 cells was markedly inhibited by GP-7 depending on the concentration and exposure time. At concns. of 0.04-100 mg/L, the inhibition rates were 15.5-92.6%, with an ID50 of 0.42 mg/L. After exposure to GP-7 at >0.5 mg/L for 24, 48, 72 and 96 h, the inhibition rates were 25.1, 49.0, 71.4 and 84.9%, resp. The dose-response curve of GP-7 on SGC-7901 cell proliferation was similar to that of etoposide (VP-16). The colony formation of SGC-7901 cell was also inhibited by GP-7 in a concentration dependent fashion with an ID50 of 1.63 mg/L. At concns. of 0.1-0.5 mg/L, the inhibitory effects were stronger than that of VP-16. GP-7 decreased the mitotic index (MI) of SGC-7901 cell and had no effect on microtubule assembly and disassembly in vitro, which suggested that GP-7 did not act on M phase.

IT 125670-69-1, GP 7
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USBS

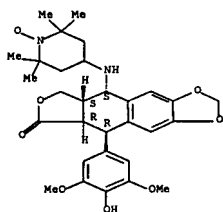
(Uses)

(antitumor activity of, as podophyllotoxin derivative, mitotic index and microtubule assembly and disassembly response to)

RN 125670-69-1 HCAPLUS

CN 1-Piperidinyl-4-[[[(5S,5aR,8aR,9R)-5,8a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl]amino]-2,2,6,6-tetramethyl- (CA INDEX NAME)

Absolute stereochemistry.



19 ANSWER 41 OF 42 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1990:552131 HCAPLUS Full-text

DOCUMENT NUMBER: 113:152131

TITLE: Antitumor agents. 113. New 4β-arylamino derivatives of 4'-O-demethylepipodophyllotoxin and related compounds as potent inhibitors of human DNA topoisomerase II

AUTHOR(S): Wang, Zhe Qing; Kuo, Yao Haur; Schnur, Dora; Bowen, J. Phillip; Liu, Su Ying; Han, Fu Sheng; Chang, Jang Yang; Cheng, Yung Chi; Lee, Kuo Hsiung

CORPORATE SOURCE: Sch. Pharm., Univ. North Carolina, Chapel Hill, NC, 27599, USA

SOURCE: Journal of Medicinal Chemistry (1990), 33(9), 2660-6

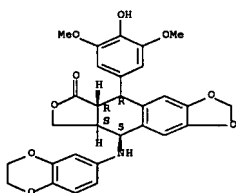
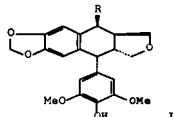
CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 113:152131

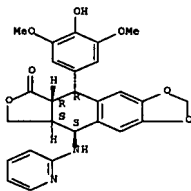
GI



RN 127882-75-1 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-(2-pyridinylamino)-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 127882-76-2 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-(3-pyridinylamino)-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

AB 4'-O-Demethylepipodophyllotoxin deriva. I (R = (un)substituted NHPh, pyridylamino, OC6H4F-4, OC6H4OH-4, SC6H4OH-4) were synthesized and evaluated for their inhibitory activity against the human DNA topoisomerase II as well as for their activity in causing cellular protein-linked DNA breakage. The results indicated, that for DNA topoisomerase II, a 4β-anilino moiety is required for enhanced activity. I (R = 3- or 4-substituted NHPh) are as potent or more potent than etoposide, but I (R = NHC6H4CO2Et-2, NHC6H4OH-2) were inactive. I (R = aryloxy, arylthio) are much less active. I (R = pyridylamino) are as active or slightly more active than etoposide. There is a lack of correlation between the ability of these compds. in inhibiting DNA topoisomerase II and in causing protein-linked DNA breaks.

IT 127882-68-2P 127882-69-3P 127882-75-1P

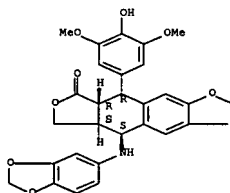
127882-76-2P 127882-77-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (preparation and antitumor activity of)

RN 127882-68-2 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[(1,3-benzodioxol-5-ylamino)-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

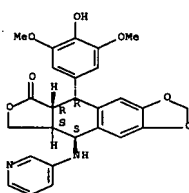
Absolute stereochemistry.



RN 127882-69-3 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[(2,3-dihydro-1,4-benzodioxin-6-yl)amino]-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

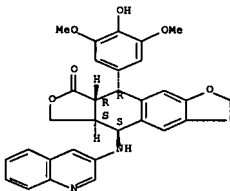
Absolute stereochemistry.



RN 127882-77-3 HCAPLUS

CN Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-(3-quinolinylamino)-, (5R,5aR,8aS,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



19 ANSWER 42 OF 42 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1990:111618 HCAPLUS Full-text

DOCUMENT NUMBER: 112:111618

TITLE: Anticancer drugs. II. Synthesis and biological evaluation of spin-labeled derivatives of podophyllotoxin

AUTHOR(S): Chen, Yaozu; Wang, Yangguang; Li, Jimxin; Tian, Xuan; Jia, Zhenpin; Zhang, Peiyan

CORPORATE SOURCE: Dep. Chem., Lanzhou Univ., Lanzhou, 730001, Peop. Rep. China

SOURCE: Life Sciences (1989), 45(26), 2569-75

CODEN: LIFSAK; ISSN: 0024-3205

DOCUMENT TYPE: Journal

LANGUAGE: English

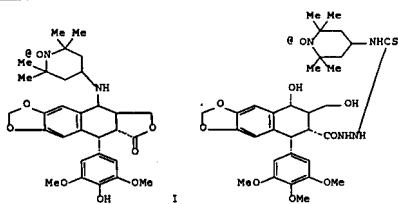
GI

CA SUBSCRIBER PRICE

ENTRY
-32.76SESSION
-32.76

SESSION WILL BE HELD FOR 120 MINUTES

STN INTERNATIONAL SESSION SUSPENDED AT 11:51:07 ON 06 JUN 2007



AB Spin-labeled derivs. of podophyllotoxin, I and II, were synthesized and tested for their anticancer activity against mouse solid tumors S180 and HepA in vivo and mouse lymphocytic leukemia L1210 and human stomach carcinoma SGC-7901 cells in vitro. At equitoxic concns., the anticancer activity of I was similar to that of the clin. used VP-16. The toxicity of I (LD50 231.2 mg/kg) was 3.3 times lower than that of VP-16 (LD50 69.5 mg/kg). I had low subchronic toxicity. The total chemical yield of I (26%) was 4 times higher than that of VP-16 (6%) (based on podophyllotoxin). Therefore, I seems to be a promising new entry into the podophyllotoxin class of anticancer drugs.

IT 125670-69-1P, OP 7

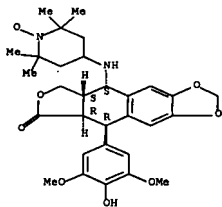
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and neoplasm-inhibitory activity and toxicity of)

RN 125670-69-1 HCAPLUS

CN 1-Piperidinyl-oxo, 4-[[[(5S,5aS,8aR,9R)-5,5a,6,8,8a,9-hexahydro-9-(4-hydroxy-3,5-dimethoxyphenyl)-8-oxofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-5-yl)amino]-2,2,6,6-tetramethyl- (CA INDEX NAME)

Absolute stereochemistry.



-- log hold

COST IN U.S. DOLLARS

SINCE FILE TOTAL

FULL ESTIMATED COST

ENTRY SESSION

231.74 408.90

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE TOTAL